The MENA Enterprise Surveys (MENA ES)

A Report on methodology and observations
September 2015

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1   Background

The Middle East and North Africa Enterprise Surveys (MENA ES) are a joint initiative of the European Bank for Reconstruction and Development (EBRD), the World Bank Group (the World Bank) and the European Investment Bank (EIB). The survey was undertaken on behalf of the EBRD, World Bank and EIB for the first time in 2012-2014, when it was administered to approximately XX enterprises in 9 countries in the MENA region to assess the environment for private enterprise and business development. It included an Innovation Module, covering product, process, organisational and marketing innovation, as well as management practices in manufacturing enterprises with at least 20 employees.

The objective of the survey is to obtain feedback from enterprises in the MENA region, including SEMED on their perception of the environment in which they operate as well as to help in building a panel of enterprise data that will make it possible to track changes in the business environment over time.

Through interviews with firms in the manufacturing and services sectors, MENA ES captures business perceptions of the biggest obstacles to enterprise growth, the relative importance of various constraints to increasing employment and productivity, and the effects of a country's business environment on its international competitiveness. MENA ES is used to create statistically significant business environment indicators that are comparable across countries.

The report outlines and describes the sampling design of the data, the data set structure as well as additional information that may be useful when using the data, such as information on non-response cases and the appropriate use of weights.

MENA ES was implemented by Gallup in cooperation with local partners. For details, refer to Annex A.

MENA ES has been supported by the SEMED cooperation funds account.

2   MENA ES Methodology

2.1   Survey universe, sample population and sampling frames

The whole population, or universe of the study, are commercial, service or industrial business establishments with at least 5 full-time employees in the non-agricultural economy. It comprises: all manufacturing sectors according to the group classification of ISIC Revision 3.1: (group D), construction sector (group F), services sector (groups G and H), and transport, storage, and communications sector (group I). Note that this definition excludes the following sectors: financial intermediation (group J), real estate and renting activities (group K, except sub-sector 72, IT, which was added to the population under study), and all public or utilities-sectors. Government departments including military, police, education, health and similar activities were excluded, as were those in primary industries including agriculture, mining, etc. There are no up to date and reliable statistics relating to this universe in the countries being surveyed in MENA ES. Consequently the universe size and characteristics have to be directly estimated from the survey results themselves. This requirement increases the emphasis that has to be placed on the quality of the sample frame, because the validity of the results is predominantly a function of coverage and age of the sampling frame.

The criteria used to evaluate the available sampling frame in descending priority were those of:
- Coverage
- Up to datedness
- Availability of detailed stratification variables
- Location identifiers- address, phone number, email
- Electronic format availability

- Contact name(s)

The sampling frames used for the surveys must consist of the lists of enterprises in each country that most optimally meet these requirements. The final selection was made by Gallup and in the case of Egypt, additionally AUC, in collaboration with the World Bank. For Egypt, Jordan, West Bank and Gaza and Yemen, two sampling frames were used. The first sampling frame was often an official frame of establishments supplied by the national statistical office of the country and the second sampling frame consisted of establishments that participated in enterprise surveys conducted in the past by local World Bank offices.

2.2 Specifications of the survey

2.2.1 Coverage of countries:

MENA ES was implemented in 9 territories (Djibouti, Egypt, Israel, Jordan, Lebanon, Morocco, Tunisia, West Bank and Gaza, and Yemen). It was not possible to implement MENA ES in Algeria, Libya and Syria.

2.2.2 Sampling structure

In all countries where a reliable sampling frame was available, the sample was selected using stratified random sampling, following the methodology explained in the Sampling Manual. Stratified random sampling was preferred over simple random sampling for several reasons:
- To obtain unbiased estimates for different subdivisions of the population with some known level of precision.
- To obtain unbiased estimates for the whole population. The whole population, or the universe of the study, is the non-agricultural economy. It comprises all manufacturing sectors according to the group classification of ISIC Revision 3.1 (group D), construction sector (group F), services sector (groups G and H), and transport, storage and communications sector (group I). Note that this definition excludes the following sectors: financial intermediation (group J), real estate and renting activities (group K, except sub sector 72, IT, which was added to the population under study), and all public or utilities sectors.
- To make sure that the final total sample includes establishments from all different sectors and that it is not concentrated in one or two of industries/sizes/regions.
- To exploit the benefits of stratified sampling where population estimates, in most cases, will be more precise than using a simple random sampling method (i.e., lower standard errors, other things being equal).
- Stratification may produce a smaller bound on the error of estimation than would be produced by a simple random sample of the same size. This result is particularly true if measurements within strata are homogeneous.
- The cost per observation in the survey may be reduced by stratification of the population elements into convenient groupings.

Three levels of stratification were used in all countries: industry, establishment size and region. The original sample designs with specific information of the industries and regions chosen are described in country-specific pages in Annex A.

In all countries, the sample was stratified along Manufacturing, Retail trade (sector 52) and Other services. In some of the countries, there were specific target numbers of interviews for more detailed sectors within these three groups. These countries include Egypt, Israel, Jordan, Lebanon, Morocco and Tunisia.

Size stratification was defined following the standardized definition for the rollout: small (5-19 employees), medium (20-99 employees), and large (more than 99 employees).[1] For stratification

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[1] The panel firms from MENA ES with less than 5 employees are included in the 5 to 19 strata.

purposes, the number of employees was defined on the basis of reported permanent full-time workers. This seems to be an appropriate definition of the labour force, since seasonal/casual/part-time employment is not a common practice, except in the sectors of construction and agriculture.

Details on the regional stratification can be found in country-specific information in Annex A.

Along the defined stratification guidelines, priority was given to completing interviews with establishments who participated in previous enterprise surveys where available.

2.3 Sampling implementation

Given the stratified design, sampling frames containing a complete and updated list of establishments as well as information on all stratification variables (number of employees, industry, and region) are required to draw the sample. Great efforts were made to obtain the best source for these listings. However, the quality of sampling frames was not optimal and, therefore, some adjustments were needed to correct for the presence of ineligible units. These adjustments are reflected in the weights computation (see section 5.2).

For a subset of countries covered in MENA ES two sampling frames were used. The first sampling frame was obtained from the official sources in the countries (details for each country can be found in country-specific information). The second sampling frame, supplied by the World Bank, consisted of enterprises interviewed in previous enterprise surveys conducted by local World Bank offices. Gallup was required to attempt to re-interview establishments responding to the previous enterprise surveys where they were within the selected geographical region and met eligibility criteria. That sample is referred to as the Panel.

The quality of the sampling frames was assessed at the onset of the project through a combination of calls, visits to a random subset of firms, and local contractor knowledge. The sampling frames proved to be useful, though they all showed positive rates of non-eligibility, repetition, non-existent units, etc. These problems are typical of establishment surveys, but given the impact these inaccuracies may have on the results, adjustments were needed when computing the appropriate weights for individual observations.

Table 1 depicts the targeted number of completed interviews for MENA ES, along with achieved total number of completed interviews and number of completed interviews with panel establishments.

Table 1: Targeted and achieved number of completed interviews

Country/territory	Number of completed interviews						
	Target	*Completed*	*Panel*	*Manufacturing*	*Retail*	*Core*	*Innovation*
Djibouti	270	266	0	64	71	131	143
Egypt	3000	2897	641	2055	142	700	1709
Israel	480	483	0	222	123	138	228
Jordan	600	573	0	380	77	116	328
Lebanon	570	561	0	243	123	195	358
Morocco	600	407	0	209	81	117	242
Tunisia	600	592	0	331	63	198	430
West Bank & Gaza	360	434	0	163	112	159	177
Yemen	360	353	139	128	107	118	198
TOTAL	**6840**	**6566**	**780**	**3795**	**899**	**1872**	**3813**

3   Fieldwork

3.1   Questionnaires and translation

Three main questionnaires were used for the survey – core, services and manufacturing – depending on the respondent's industry. In addition, two innovation modules were used – core/retail and manufacturing. A screener questionnaire was also used during the recruitment phase.

The questionnaires were translated into local languages (Table 2).

Table 2: Questionnaire languages used in each country

Country	Languages
Djibouti	French
Egypt	Arabic
Israel	Hebrew
Jordan	Arabic
Lebanon	Arabic
Morocco	Arabic, French
Tunisia	Arabic, French
West Bank & Gaza	Arabic
Yemen	Arabic

The translation process progressed as follows:
1. When the questionnaire and showcards were finalised, they were sent to the national agencies for translation.
2. The questionnaire was translated by a suitably qualified and experienced executive within each local agency into the national offical languages.
3. The questionnaire was back translated into English by independent linguists.
4. The back translations were compared to the master English questionnaire by the Gallup team and a list of differences was sent to the local agency.
5. The local agencies amended the questionnaires.
6. The Gallup team checked the changes had been made.
7. After the pilot, further changes were made to the questionnaire by the local agencies
8. The national agencies sent the final national questionnaires and showcards to GallupMORI, and they were proof read by Language Connect.
9. Final national questionnaires were sent to the EBRD and WB for their records.

In addition, Country Profiles were also translated by the local agencies and proof-read by the translation agency. The Country Profiles were used during or after fieldwork, as an incentive for the interviewees.

3.2   CAPI scripting and testing

Once the translations had been approved, the countries using a CAPI script worked on setting up the script and then the script was thoroughly tested by each country manager. To test the script, the country manager checked the question wording and the routing was correct and made sure that logic checks had been built into the script where appropriate.

The Gallup team also checked the final scripts, providing this was possible due to differences in software. If it was not possible to check the script, Gallup requested a dummy topline, which means it is possible to check the routing is working and that single and multicode questions are set up correctly.

3.3 Mode of completion

The survey was carried out face to face in home. Questionnaires were administered either using Computer Assisted Personal Interviewing (CAPI) or Pen and Paper Interviewing (PAPI), depending on local practice in each country (see Table 3).

Table 3: Survey administration in each country

Country	Survey administration
Djibouti	CAPI
Egypt	CAPI/PAPI
Israel	CAPI
Jordan	CAPI
Lebanon	CAPI
Morocco	CAPI/PAPI
Tunisia	CAPI
West Bank & Gaza	CAPI/PAPI
Yemen	CAPI

3.4 Training

Training briefings were organised with the country managers of all the local agencies.

Each country manager was required to attend a 3 day 'train the trainers' briefing to ensure that they were suitably well informed to train their agency field force and to manage the project. Each training session lasted three days, and was delivered by representatives from the EBRD and WB teams and Gallup. The training covered:

- MENA ES management team introduction;
- Introduction of the MENA ES by the World Bank/EBRD representative, on behalf of the World Bank, EBRD and EIB;
- Universe and sample for MENA ES
- Sampling frames and selected samples:
    - o Listings and quality control
    - o Sample management and fieldwork progress report
    - o Response rate: Follow up – methods to ensure a good response rate
- The questionnaires implementation:
    - o Key concepts
    - o Questionnaire manual
    - o Mock interviewing with the manufacturing questionnaire
    - o Innovation module and eligibility
    - o Multiple choice test
    - o Questionnaire proofreading
- Supervisors and interviewer training
- MENA ES pilot survey
- Data entry and quality control
- An open question and answer session.

The briefings took place in the following locations in the periods indicated in Table 4.

Table 4: Location and dates of the briefings

Location	Countries	Language of the briefing	Dates
Casablanca	Morocco	English, with translation to French	6-8 November 2012
Amman	Jordan, Lebanon, Yemen	English, with translation to Arabic	14-17 January 2013
Tel Aviv	Israel	English	20-21 January 2013
Tunis	Tunisia, *Algeria*	English, with translation to French	6-8 March 2013
Cairo	Egypt (PARC), Djibouti	English, with translation to Arabic	10-12 March 2013
Ramallah	West Bank and Gaza (Gaza team attended over Video-Conference)	English, with translation to Arabic	26-30 May 2013
Cairo	Egypt (AUC)	English, with translation to Arabic	24-26 March 2014

This training ensured that project managers were well-prepared to train their own field force. Importantly, it also ensured that the content of the training in each country was the same.

For the supervisors and interviewer training, Gallup provided the training materials to the survey and fieldwork managers, covering the different training components such as:

- Written training. Each supervisor and interviewer received a questionnaire manual that had to be read carefully before the training. In addition, supervisors and interviewers received detailed interviewer instructions, in order to fully understand the survey methodology and objectives.
- Theoretical training. Once the supervisors and interviewers had reviewed the questionnaire manual and interviewer instructions, the survey manager in each country thoroughly explained the study's metholodology and reviewed the whole instrument, question by question, to ensure its correct comprehension, explain key concepts, unification of criteria, and answer any questions.
- Comprehension test. After the training, supervisors and interviewers completed a multiple choice test to assess their understanding of the survey methodology and questionnaire.

Additional interviewer briefings –over the phone or in person – were also organised whenever needed and according to any particular requirements of the survey.

For further details on the training on a country by country basis, please refer to the appendices.

3.5 Piloting

Before the survey was launched, a pilot was conducted in Morocco, using both French and Arabic versions of the questionnaires. Interviews were conducted by local interviewers who provided feedback to their country managers. Table 5 shows the quotas achieved for the pilot interviews.

Table 5: Pilot fieldwork dates and interviews achieved

Language	Pilot fieldwork dates		Questionnaire type		
	Start	Finish	Manufacturing	Services	Total
French	12 November 2012	20 November 2012	1	24	25
Arabic			4	7	11

The main purpose of the pilot was to check that the translation was correct, the routing was correct, and that the questions were appropriate for the local environment. Also, these interviews were timed to

ascertain the length of the questionnaire. All four questionnaires –manufacturing and services, and services and manufacturing innovation – were tested.

After the pilot was completed, a pilot report was sent to the World Bank outlining the key findings and recommended changes to the questionnaire.

Any modification to the questionnaire and instructions were approved by the World Bank task manager before the survey was implemented. Prior to the launch of the main survey, the World Bank task manager gave their explicit approval of the survey instrument.

4   Survey and item non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. MENA ES suffers from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:
- For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond as (-8) as a different option from don't know (-9).
- Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response.

Survey non-response was addressed by maximising efforts to contact establishments that were initially selected for interviews. Attempts were made to contact an establishment for interview at different times/days of the week before a replacement establishment (with similar strata characteristics) was suggested for interview. Survey non-response did occur, but substitutions were made in order to potentially achieve strata-specific goals. Further research is needed on survey non-response in MENA ES regarding potential introduction of bias.

Details on rejection rates, eligibility rates, and item non-response are available at the strata level. This report summarized these numbers to alert researchers to these issues when using the data and when making inferences. Item non-response, selection bias and faulty sampling frames are not unique to MENA ES. All Enterprise Surveys suffer from these shortcomings, but in very few cases they have been made explicit.

5   MENA ES Database

5.1   Database structure

The structure of the database reflects the fact that three different versions of the questionnaire were used. The basic questionnaire, the Core Module, includes all common questions asked to all establishments from all sectors (manufacturing, services and IT). The second expanded variation, the Manufacturing Questionnaire, is built upon the Core Module and adds some specific questions relevant to the sector. The third expanded variation, the Retail Module, is also built upon the Core Module and adds to the core specific questions relevant to either retail or IT. Each variation of the questionnaire is identified by the index variable, *a0*.

All variables are named using, first, the letter of each section and, second, the number of the variable within the section (i.e., *a1* denotes section A, question 1). Variable names preceded by "*mna*" indicate questions specific to MENA ES, and therefore, they may not be found in the implementation of Enterprise Surveys in other parts of the world. Table 6 identifies these questions, and also notes which

variables were used for these questions in BEEPS (where applicable). All other suffixed variables are global and are present in all country surveys over the world. All variables are numeric, with the exception of the variables ending with "*x*". The suffix "x" denotes that the variable is alpha-numeric.

Table 7 contains the variables that refer to the same question in MENA ES and BEEPS V, but use different variable names.

Table 6: Variable names preceeded by "mna" - MENA ES, and counterparts in BEEPS V (where applicable)

Main questionnaire			Innovation Module		
MENA ES	**BEEPS V**	**Comments**	**MENA ES**	**BEEPS V**	**Comments**
mnab4a			mnao1a	ecao1a	Questions have the same meaning but they are formulated in slightly different ways
mnaq5	ecaq5		mnao1bx	ecao1bx	
mnaq5x	ecaq5x		mnao2a	ecao2a	Questions have the same meaning but they are formulated in different ways
mnab7b			mnao2b	ecao2b	
mnac18a			mnao2c	ecao2c	
mnac18b			mnao3a	ecao3a	
mnac18c			mnao3i		
mnac31a1	ecac31a1		mnao3b	ecao3b	
mnac31a3	ecac31a3		mnao3c	ecao3c	
mnad7x			mnao3d	ecao3d	
mnad14b			mnao3h		
mnad31b1	ecad31b1		mnao3e	ecao3e	
mnad31b3	ecad31b3		mnao3g		
mnae3a			mnao3f	ecao3f	
mnae3b			mnao3fx	ecao3fx	
mnae3c			mnao4	ecao4	
mnae3d			mnao5	ecao5	
mnaq53	ecaq53		mnao5x	ecao5x	
mnae20			mnahb13a		
mnaf3			mnahb13d		
mnaf4			mnahb13e		
mnaf5a			mnahb13f		
mnaf5b			mnahb13g		
mnaf5c			mnahb13h		
mnaf5d			mnahb13i		
mnak4a	ecak4a		mnao6	ecao6	
mnak8c			mnao7a	ecao7a	
mnak8d			mnao7b	ecao7b	
mnak9a	ecak9a		mnao7c	ecao7c	
mnak9a_str	k9a_val		mnao8x	ecao8x	
mnak9ax	ecak9ax		mnao9a	ecao9a	Questions have the same meaning but they are formulated in slightly different ways
mnaq46f	ecaq46f		mnao9b	ecao9b	

mnaq46fx	ecaq46fx		mnao9c	ecao9c	
mnaq46d	ecaq46d	The question for MENA has one more option for negative answer (-7)	mnao10a	ecao10a	
mnaq46e	ecaq46e		mnao10b	ecao10b	
mnak15a1	ecak15a1		mnao10c	ecao10c	
mnak20b			mnao10d	ecao10d	Was not asked in Russia
mnak20c			mnahc8		
mnaq31e	ecaq31e		mnahc9a		
mnaj1b	ecaj1b		mnahc9b		
mnaj1c	ecaj1c		mnahc9c		
mnaj1a			mnahc9d		
mnaj1d			mnahc9g		
mnaj31b1	ecaj31b1		mnahc9gx		
mnaj31b3	ecaj31b3		mnao11	ecao11	
mnaj31c1	ecaj31c1		mnao11x	ecao11x	
mnaj31c3	ecaj31c3		mnahc16b		
mnaj31f1	ecaj31f1		mnahc16c		
mnaj31f3	ecaj31f3		mnahc16d		
mnaj30g			mnahc16e		
mnal3a			mnahc16f		
mnal3b			mnahc16g		
mnal4			mnahc16h		
mnal4a			mnahc16j		
mnal4b			mnao12	ecao12	
mnal4c			mnao13	ecao13	
mnal4d			mnao14a	ecao14a	
mnal4e			mnao14b	ecao14b	
mnal4f			mnao14c	ecao14c	
mnal4fx			mnao14d	ecao14d	
mnal5c			mnao14e	ecao14e	
mnal9a1	ecaq69	Questions have the same meaning but they are formulated in different ways	mnao14f	ecao14f	
mnal9a2			mnao15a	ecao15a	
mnan8a			mnao15b	ecao15b	
mnaa20			mnao15c	ecao15c	
mnaa15a4a	ecaa15a4a		mnao15d	ecao15d	
mnaa15a4b	ecaa15a4b		mnao16	ecao16	
mnaa15a4c	ecaa15a4c		mnao17	ecao17	
			mnao18	ecao18	
			mnao19	ecao19	
			mnao20	ecao20	
			mnao21	ecao21	
			mnao22a	ecao22a	
			mnao22b	ecao22b	
			mnao23a	ecao23a	

			mnao23b	ecao23b	
			mnao23cx	ecao23cx	
			mnao23d	ecao23d	
			mnar1	ecar1	
			mnar2	ecar2	
			mnar6	ecar6	
			mnar7	ecar7	
			mnar8	ecar8	
			mnar11	ecar11	
			mnar13	ecar13	
			mnar15	ecar15	

Table 7: Different variable names for the same question in MENA ES and BEEPS V

Main questionnaire		
MENA ES	**BEEPS V**	**Comments**
a7a	a7	
a7c	a7a	
h4a	ecah4	
h5	h4	
h6	h5	
h7	h6	
h8	ecah8	
l9a	l9a1	

There are two establishment identifiers, *idstd* and *id*. The first is a global unique identifier. The second is a country unique identifier. The variables *a2* (sampling region), *a6a* (sampling establishment's size) and *a4a* (sampling sector) contain the establishment's classification into the strata chosen for each country using information from the sampling frame. The strata were defined according to the guidelines described above and in country-specific information.

There are three levels of stratification: industry, size and region. Different combinations of these variables generate the strata cells for each industry/region/size combination. A distinction should be made between the variable *a4a* (sampling sector) and *d1a2* (industry expressed as ISIC rev. 3.1 code). The former gives the establishment's classification into one of the chosen industry-strata, whereas the latter gives the actual establishment's industry classification (four digit code) in the sampling frame.

All of the following variables contain information from the sampling frame and were defined with the sampling design. They may not coincide with the reality of individual establishments as sampling frames may contain inaccurate information. The variables containing the sampling frame information are included in the data set for researchers who may want to further investigate statistical features of the survey and the effect of the survey design on their results:
- *a2* is the variable describing sampling regions
- *a6a*: coded using the same standard for small, medium, and large establishments as defined above. The code -9 was used to indicate units for which size was missing in the sampling frame
- *a4a*: coded using ISIC codes for the chosen industries for stratification. These codes include most manufacturing industries (15 to 37), retail (52) and other services (45, 50, 51, 55, 60-64, 72)
- *idstd2010 and idstd2008*: contain the WB idstd firm ids of the panel firms from previous enterprise surveys in Yemen and Egypt, respectively

The surveys were implemented following a two-stage procedure. In the first stage, a screener questionnaire was typically applied over the phone to determine eligibility and to make appointments.

In the second stage, a face-to-face interview took place with the Manager/Owner/Director of each establishment. The variables *a4b* and *a6b* contain the industry and size of the establishment from the screener questionnaire. Variables *a8* to *a11* contain additional information and were also collected in the screening phase.

There are additional variables for location (*a3x*), industry (*d1a2*) and size (*l1*, *l6* and *l8*) that reflect more accurately the reality of each establishment:

– Variable *a3x* indicates the actual location of the establishment. There may be divergencies between the location in the sampling frame and the actual location, as the establishment may be listed in one place but the actual physical location is in another place.
– Variable *d1a2* indicates the actual ISIC code of the main output of the establishment as answered by the respondent. This is probably the most accurate variable to classify establishments by activity.
– Variables *l1*, *l6* and *l8* were designed to obtain a more accurate measure of employment accounting for permanent and temporary employment. Special efforts were made to make sure that this information was not missing for most establishments.
– Variable *a17x* gives interviewer comments, including problems that occurred during an interview and extraordinary circumstances which could influence results. Please note that sometimes this variable is removed due to privacy issues.

Note that certain variables (including *a3x*, actual location of the establishment) have been removed from the public version of the dataset for confidentiality reasons.

The "last complete fiscal year" refers to 2012, while "three fiscal years ago" refers to 2009.

5.2 Weights

Since the sampling design was stratified and employed differential sampling, individual observations should be properly weighted when making inferences about the population. Under stratified random sampling unweighted estimates are biased unless sample sizes are proportional to the size of each stratum. With stratification the probability of selection of each unit is, in general, not the same. Consequently, individual observations must be weighted by the inverse of their probability of selection (probability weights or *pw* in Stata).[2]

Special care was given to the correct computation of weights. Considering the varying quality of the sampling frames, it was imperative to accurately adjust the totals within each region/industry/size stratum to account for the presence of ineligible units (the firm discontinued business or was unattainable, education or government establishments, non-panel establishments with less than 5 employees, no reply after having called on different days of the week and at different business hours, out of order, no tone in the phone line, answering machine, fax line, wrong address or moved away and could not get the new reference). The information required for the adjustment was collected in the first stage of the implementation, during the screening process. Using this information, each stratum cell of the universe was scaled down by the observed proportion of ineligible units within the cell. Once an accurate estimate of the universe cell (projections) was available, weights were computed using the number of completed interviews. Note that panel firms with less than 5 employees were also included in the eligible sample and special code zero was used in *a6a* and *a6b* (sample and screener size) to reflect those cases.

For some establishments it was impossible to determine eligibility because the contact was not successfully completed during the screening process (because the firm has moved and it is not possible to locate the new location, for example). Consequently, different assumptions as to their eligibility result in different universe cells' adjustments and in different sampling weights. Three sets of assumptions were considered to construct sample adjustments using the status code information:

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[2] This is equivalent to the weighted average of the estimates for each stratum, with weights equal to the population shares of each stratum.

1. *Strict assumption*: Eligible establishments are only those for which it was possible to directly determine eligibility. The resulting weights are included in the variable *wstrict*.
2. *Median assumption*: Eligible establishments are those for which it was possible to directly determine eligibility and those that rejected the screener questionnaire or an answering machine or fax was the only response. The resulting weights are included in the variable *wmedian*.
3. *Weak assumption*: In addition to the establishments included in the first two points, all establishments for which it was not possible to finalize a contact are assumed to be eligible. This includes establishments with dead or out of service phone lines, establishments that never answered the phone, and establishments with incorrect addresses for which it was impossible to find a new address. The resulting weights are included in the variable *wweak*. Note that under the weak assumption only observed non-eligible units are excluded from universe projections.

Table 8 summarizes the eligibility criteria for each of the above three assumptions.

Note that for the purpose of the weights computations all panel firms were considered to be part of the current universe, although technically they are not randomly selected.

Table 8: Eligibility criteria

Status Code	Eligibility Criteria		
	Strict	**Weak**	**Median**
1. Eligible establishment (Correct name and address)	1	1	1
2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	1	1	1
3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	1	1	1
4. Eligible establishment (Wrong address - the firm/establishment has changed address and the address could be found)	1	1	1
16. Panel firm - now less than five employees	1	1	1
5. The establishment has less than 5 permanent full time employees	0	0	0
6. The firm discontinued businesses	0	0	0
7. Not a business: Private household	0	0	0
8. Ineligible activity: education, agriculture, finances, governments…	0	0	0
91. No reply (after having called in different days of the week and in different business hours)	0	1	0
92. Line out of order	0	1	0
93. No tone	0	1	0
10. Answering machine	0	1	1
11. Fax line – data line	0	1	1
12. Wrong address/ moved away and could not get the new references	0	1	0
13. Refuses to answer the screener	0	1	1
14. In process *(the establishment is being called/ is being contacted – previous to ask the screener)*	0	0	0
151. Out of target – outside the covered regions, firm moved abroad	0	0	0
152. Out of target – firm moved abroad	0	0	0

Strict eligibility = (Sum of the numbers with codes 1,2,3,4,&16) / Total
Weak eligibility = (Sum of the numbers with codes 1,2,3,4,16,91,92,93,10,11,12,&13) / Total
Median eligibility = (Sum of the numbers with codes 1,2,3,4,16,10,11, & 13) / Total

5.2.1 Appropriate use of the weights

As discussed above, under stratified random sampling weights should be used when making inferences about the population. Any estimate or indicator that aims at describing some feature of the population should take into account that individual observations may not represent equal shares of the population.

However, there is some discussion as to the use of weights in regressions (see Deaton, 1997, p.67; Lohr, 1999, chapter 11, Cochran, 1977, p. 150). There is not strong large sample econometric argument in favour of using weighted estimation for a common population coefficient if the underlying model varies per stratum (stratum-specific coefficient): both simple OLS and weighted OLS are inconsistent under regular conditions. However, weighted OLS has the advantage of providing an estimate that is independent of the sample design. This latter point may be quite relevant for BEEPS as in most cases the objective is not only to obtain model-unbiased estimates but also design-unbiased estimates (see also Cochran, 1977, p. 200 who favours the use of weighted OLS for a common population coefficient).[3]

For a more general approach, if the regressions are descriptive of the population then weights should be used. The estimated model can be thought of as the relationship that would be expected if the whole population were observed.[4] If the models are developed as structural relationships or behavioural models that may vary for different parts of the population, then there is no reason to use weights.

6 Bibliography

1. Cochran, William G. Sampling Techniques. 3rd edition. Wiley, 1977. 428 pages.
2. Deaton, Angus. The Analysis of Household Surveys: A Microeconomic Approach to Development Policy. World Bank Publications, 1997. 488 pages.
3. Levy, Paul S. and Stanley Lemeshow. Sampling of Populations: Methods and Applications. 3rd edition. Wiley, 1999. 568 pages.
4. Lohr, Sharon L. Sampling: Design and Analysis. 1st edition. Duxbury Press, 1999. 512 pages.
5. Schaeffer, Richard L., William Mendenhall and Lyman Ott. Elementary Survey Sampling, 5th edition. Duxbury Press, 1996.

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[3] Note that weighted OLS in Stata using the command regress with the option of weights will estimate wrong standard errors. Using the Stata survey specific commands svy will provide appropriate standard errors.

[4] The use of weights in most model-assisted estimations using survey data is strongly recommended by the statisticians specialised on survey methodology of the JPSM of the University of Michigan and the University of Maryland.

Annex A   Country-specific information on BEEPS survey

A.1   Djibouti

A.1.1. Sampling structure and implementation

The sampling frame was based on the Establishment Census by the Ministry of Justice and Trade, which consists of Direction de la Statistique et des Etudes Démographiques (DISED)-classified private and free-zone private enterprises. Only Djibouti City was covered.

The quality of the frame was assessed at the onset of the project. The frame proved to be useful though it showed positive rates of non-eligibility, repetition, non-existent units, etc. These problems are typical of establishment surveys, but given the impact these inaccuracies may have on the results, adjustments were needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of contacts to complete the survey was 13.8% (58 out of 420 establishments).

Regions (official administrative counties)	Grouping used for stratification purposes in MENA ES
Djibouti Region (Ville de Djibouti)	Djibouti City
Tadjourah Region *(Region de Tadjourah)*	Not covered
Obock Region *(Region d'Obock)*	
Dikhil Region *(Region de Dikhil)*	
Arta Region *(Region d'Arta)*	

Sampling frame

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
Djibouti City	5-19	46	102	222	370
	20-99	14	36	96	146
	100+	2	4	31	37
Grand Total		62	142	349	553

Sources: DISED-classified private and free-zone private enterprises from the Establishment Census 2009-2010, Ministry of Justice and Trade.

Original sample design

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
Djibouti City	5-19	34	60	33	127
	20-99	14	36	60	110
	100+	2	4	27	33
Grand Total		50	100	120	270

Realised interviews (based on a2, a4a and a6a)

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
Djibouti City	5-19	29	64	68	161
	20-99	8	27	50	85
	100+	1	3	16	20
Grand Total		38	94	134	266

A.1.2. Status codes

	TOTAL
Complete interviews **(Total)**	266
Complete interviews (not eligible for innovation)	117
Complete interviews (with innovation)	143
Complete interviews (eligible, but refused to answer innovation)	6
Incomplete interviews	4
Elegible in process	6
Refusals	39
Quota is met	0
Out of target	56
Impossible to contact	36
Ineligible - coop.	2
Refusal to the Screener	11
Total	420

Eligible	1.Elegible establishment (Correct name and address)	267
	2. Elegible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	1
	3. Elegible establishment (Different name but same address - the firm/establishment changed its name)	25
	4. Elegible establishment (Wrong address - the firm/establishmen has changed address and the address could be found)	22
	16. Panel firm - now less than five employees	0
Ineligible	5. The establishment has less than 5 permanent full time employees	23
	6. The firm discontinued businesses	28
	7. Not a business: private household	4
	8. Ineligible activity: education, agriculture, finances, governments…	1
Unobtainable	91. No reply *(after having called in different days of the week and in different business hours)*	6
	92. Line out of order	0
	93. No tone	0
	94. Phone number does not exist	0
	10. Answering machine	0
	11. Fax line - data line	0
	12. Wrong address/ moved away and could not get the new references	30
	13. Refuses to answer the screener	11
	14. In process *(the establishment is being called/ is being contacted - previous to ask the screener)*	0
	151. Out of target - outside the covered regions, firm moved abroad	0
	152. Out of target - firm moved abroad	0
	153. Impossible to find	2
	154. Establishment is HQ without production or sales in the location	0
	156. Duplicate in the sample	0
	Total	420

A.1.3. Survey and item non-response

The number of completed interviews per contacted establishment was 0.63.[5] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which

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[5] The estimate is based on the total number of firms contacted including ineligible establishments.

includes rejections of the screener and the main survey) and the quality of the sampling frame, as represented by the presence of ineligible units. The number of rejections per contact was 0.12.

A.1.4. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local agency	Name: Direction de la Statistique et des Etudes Démographiques (DISED) Country: Djibouti
Name of Project Manager	
Name and position of other key persons of the project	
Enumerators involved	Enumerators: 8 The interviewers did some of the recruitment.
Other staff involved	

Sampling frame

Characteristic of sample frame used	Variables: Name of establishment, address, activity, telephone number, number of employees
Source	Establishment Census, Ministry of Justice and Trade
Year of publication	2009-2010
Comments on the quality of the sample frame	The sample frame was not immune from the typical problems found in establishment surveys: positive rates of non- eligibility, repetition, non-existent units, etc.
Year and organisation that conducted the last economic census	Ministry of Justice and Trade, 2009-2010

Sample

Comments/problems on sectors and regions selected in the sample	
Comments on the response rate	
Comments on the sample design	

Fieldwork

Date of fieldwork	June 2013 – September 2013, with additional call-backs and data finalisation lasting until April 2014.
Country	Djibouti
Number of completed interviews	266
Problems found during fieldwork	Some enterprises refused to disclose financial data, requiring significant number of callbacks. Item non-response was also a significant problem and addressed through re-contacting respondents in order to complete this information, particularly on questions d2 and n7a. Despite the confidentiality of identifying information, many respondents felt uncomfortable giving out specific financial information. In the end, 14 cases were dropped for critically low response rates, where less than 40% of numeric values were filled in.
Actions taken to improve response rate/deal with problems during fieldwork	

Questionnaires

Problems for the understanding of questions (write question number)	
Problems found in the navigability of questionnaires (for example,	

skip patterns)	
Comments on questionnaire length	
Suggestions or other comments on the questionnaires	

Quality control

Fieldwork monitoring	Callbacks were made at multiple stages of the fieldwork process. All verifications and consistency checks (for tablet-based interviews) were applied on PC-tablet applications. An error message pops up when entering a wrong value and some error messages show up in red for sensitive questions.
Data checking procedures	DISED conducted ongoing callbacks at the direction of Gallup Europe throughout the fieldwork period.
Number of respondents selected for back-checking	227 out of 280 interviews completed
Selection procedures	
Who carried out back-checks?	
Mode of contact	Telephone and face to face
Number of completed interviews back-checked	227
Number of non-responses back-checked	
Results of alternative method of contacting non-respondents	NA
Description of what was covered in the back-checks	A standard callback questionnaire of key variables (d2, n3, l1, l2, n2, n7, l6, and l8) was used to confirm the accuracy of recorded data.
Number of completed interviews that were rejected and why	14 cases were removed due to critically low item-level response, below 40%.

Database

Data entry program chosen	Raw data was directly uploaded from the tablets and computer CATI system, eliminating the need for data entry.
Comments on the data entry program	
Comments on the data cleaning	Cleaning was done to correct variable names and value labels, as well as to insert the 'control variables' (a1-a6) that did not come with the data. Callbacks were also made to correct invalid cases, get more detail on some of the string variables and to complete questions the respondent originally declined to answer.

Country situation

General aspects of economic, political or social situation of the country that could affect the results of the survey	
Relevant country events that occurred during fieldwork	
Other aspects	

A.2   Egypt

A.2.1. Sampling structure and implementation

Three sampling frames were used. The first was supplied by the World Bank and consisted of enterprises interviewed in Enterprise Survey Egypt 2008. The World Bank required that attempts should be made to re-interview establishments responding to the ES Egypt 2008 where they met eligibility criteria. That

sample is referred to as the Panel. The second sampling frame was compiled from GAFI database and Bureau van Dijk's Orbis database and was current as of 2013.

Regional stratification was defined in four regions. These regions are North, South East, South West, and Yerevan. Table below shows the grouping of official administrative regions into these four regions.

Governorate	Grouping used for stratification purposes in MENA ES
Cairo	Cairo
Alexandria	Alexandria
Damietta	Damietta
Dakahliya	Dakahliya
Sharqia	Sharqia
Qalyubia	Qalyubia
Kafr-El-Sheikh	Kafr-El-Sheikh/Menoufiya/Beheira
Menoufiya	
Beheira	
Gharbiya	Gharbiya
Giza	Giza
Port Said	Port Said/Suez/Ismailia
Suez	
Ismailia	
Beni Suef	Upper Egypt
Minya	
Fayoum	
Assuit	
Souhag	
Qena	
Aswan	
Luxor	
Red Sea	Red Sea/Matrouh/Wadi al Jadid/Sinai
South Sinai	
North Sinai	
Matrouh	
Wadi al Jadid	

The quality of the frame was assessed at the onset of the project. The frame proved to be useful though it showed positive rates of non-eligibility, repetition, non-existent units, etc. These problems are typical of establishment surveys, but given the impact these inaccuracies may have on the results, adjustments were needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of contacts to complete the survey was 7.6% (455 out of 5954 establishments).

Fresh sampling frame

	15	17	18	19	20	22	24	25	26	28	36	Other Manufac-turing	45	50	51	52	Hotels	Restaurants	60-64	IT	Grand Total
Cairo	**2617**	**506**	**2242**	**1914**	**694**	**1034**	**294**	**345**	**1148**	**1703**	**948**	**1456**	**1230**	**2059**	**4733**	**13311**	**259**	**4364**	**2579**	**214**	**43650**
5-19	2521	435	2022	1861	678	961	251	279	1077	1608	898	1230	1100	1993	4374	12860	186	4114	2305	187	40940
20-99	81	53	187	46	14	62	38	55	59	84	41	184	111	62	328	423	54	244	245	23	2394
100+	15	18	33	7	2	11	5	11	12	11	9	42	19	4	31	28	19	6	29	4	316
Alexandria	**1513**	**209**	**778**	**210**	**377**	**232**	**140**	**187**	**252**	**458**	**280**	**424**	**415**	**546**	**1402**	**4199**	**98**	**1873**	**1045**	**48**	**14686**
5-19	1412	145	662	197	361	216	96	139	213	409	260	322	372	524	1245	4095	66	1792	930	46	13502
20-99	76	46	86	11	14	14	34	39	31	43	18	77	42	20	150	91	29	79	111	2	1013
100+	25	18	30	2	2	2	10	9	8	6	2	25	1	2	7	13	3	2	4		171
Port Said	**104**	**5**	**47**	**9**	**11**	**10**	**9**	**6**	**16**	**29**	**20**	**34**	**31**	**100**	**141**	**585**	**37**	**308**	**230**	**3**	**1735**
5-19	99	4	11	5	11	10	2	4	13	26	20	24	26	99	130	571	32	298	208	3	1596
20-99	4		5	3			5	1	3	2		8	4	1	11	13	3	10	21		94
100+	1	1	31	1			2	1		1		2	1			1	2		1		45
Suez	**167**	**6**	**14**	**2**	**4**	**1**	**8**	**1**	**33**	**25**	**11**	**34**	**22**	**37**	**49**	**208**	**60**	**176**	**145**	**4**	**1007**
5-19	148	4	12	1	4	1	1	1	19	19	10	14	16	36	44	199	22	173	133	4	861
20-99	11		1				3		10	6		11	4	1	5	9	27	3	10		101
100+	8	2	1	1			4		4		1	9	2				11		2		45
Luxor	**111**	**5**	**5**	**0**	**2**	**5**	**1**	**0**	**24**	**6**	**24**	**7**	**6**	**12**	**33**	**175**	**80**	**136**	**137**	**0**	**769**
5-19	68	5	5		2	5	1		24	6	24	7	5	12	32	173	52	133	124		678
20-99	2												1		1	2	19	3	13		41
100+	41																9				50
Damietta	**424**	**41**	**30**	**11**	**641**	**4**	**13**	**11**	**81**	**35**	**3120**	**42**	**15**	**75**	**175**	**1243**	**41**	**239**	**220**	**3**	**6464**
5-19	412	39	28	10	635	4	11	11	75	35	3108	40	14	74	170	1235	41	239	214	3	6398
20-99	12	2	2	1	6		2		6		12	2	1	1	5	8			5		65
100+																			1		1
Dakahliya	**1320**	**382**	**779**	**32**	**243**	**49**	**99**	**148**	**297**	**596**	**352**	**300**	**50**	**410**	**713**	**1367**	**14**	**303**	**184**	**5**	**7643**
5-19	1282	358	734	32	238	47	94	145	230	587	352	271	49	409	665	1349	9	293	178	5	7327
20-99	33	24	43		5	2	4	3	62	8		25	1	1	44	17	5	9	6		292
100+	5		2				1		5	1		4			4	1		1			24
Sharkiya	**1669**	**361**	**253**	**30**	**289**	**77**	**127**	**115**	**278**	**356**	**267**	**491**	**78**	**327**	**469**	**1562**	**10**	**319**	**225**	**4**	**7307**
5-19	1543	265	205	17	274	55	42	53	207	290	249	285	65	316	324	1426	10	313	205	4	6148
20-99	87	50	24	10	14	13	60	39	45	54	12	132	10	6	87	86		6	15		750
100+	39	46	24	3	1	9	25	23	26	12	6	74	3	5	58	50			5		409
Qualyubia	**1714**	**823**	**499**	**125**	**397**	**107**	**184**	**551**	**314**	**583**	**342**	**621**	**36**	**285**	**636**	**1543**	**2**	**604**	**446**	**3**	**9815**
5-19	1643	564	401	105	387	87	142	488	277	525	327	468	30	272	600	1480	2	603	429	3	8833
20-99	53	244	80	17	10	19	34	58	19	49	10	129	5	12	31	53			1	16	840
100+	18	15	18	3		1	8	5	18	9	5	24	1	1	5	10			1		142
Kafr-El-Sheikh\ Menoufiya\Beheira	**2502**	**502**	**248**	**45**	**346**	**80**	**79**	**89**	**547**	**313**	**510**	**300**	**74**	**363**	**821**	**2175**	**19**	**483**	**241**	**4**	**9741**
5-19	2405	459	231	41	342	78	54	81	411	304	504	253	68	363	777	2137	17	472	231	4	9232
20-99	82	36	12	2	4	1	20	7	132	9	5	31	5		37	32	2	11	8		436
100+	15	7	5	2		1	5	1	4		1	16	1		7	6			2		73
Gharbiya	**1259**	**1780**	**741**	**165**	**301**	**121**	**115**	**92**	**380**	**257**	**266**	**193**	**58**	**267**	**595**	**1600**	**13**	**387**	**185**	**8**	**8783**

21

5-19	1207	1600	633	160	298	112	98	86	297	250	264	176	54	265	539	1555	10	379	174	8	8165
20-99	45	147	98	5	3	9	15	5	81	6	2	15	3	2	54	41	3	8	11		553
100+	7	33	10				2	1	2	1		2	1		2	4					65
Ismailia	**359**	**8**	**39**	**6**	**25**	**5**	**24**	**18**	**46**	**36**	**37**	**40**	**21**	**57**	**207**	**320**	**15**	**144**	**39**	**5**	**1451**
5-19	335	7	20	3	25	4	16	13	45	35	37	28	19	57	190	304	11	141	38	5	1333
20-99	20	1	2	3		1	4	3	1	1		10	2		14	13	4	3			82
100+	4		17				4	2				2			3	3			1		36
Giza	**1786**	**181**	**1071**	**100**	**292**	**361**	**187**	**109**	**726**	**599**	**534**	**596**	**425**	**900**	**1285**	**4923**	**114**	**2126**	**960**	**105**	**17380**
5-19	1598	160	957	84	272	319	95	68	393	558	508	368	365	873	1122	4726	67	2020	855	85	15493
20-99	120	14	91	8	4	32	47	19	276	27	21	120	50	21	144	178	35	100	78	17	1402
100+	68	7	23	8	16	10	45	22	57	14	5	108	10	6	19	19	12	6	27	3	485
Bani-Suef\Minya	**2530**	**34**	**36**	**2**	**91**	**22**	**39**	**20**	**92**	**95**	**155**	**65**	**42**	**126**	**327**	**785**	**20**	**367**	**92**	**6**	**4946**
5-19	2472	30	34	2	89	22	29	17	66	93	154	56	36	126	315	773	16	364	86	6	4786
20-99	53	4	1		2		10	2	21	1	1	9	6		11	12	4	3	6		146
100+	5		1					1	5	1					1						14
Fayoum	**502**	**37**	**19**	**12**	**281**	**19**	**16**	**5**	**137**	**42**	**155**	**25**	**8**	**58**	**130**	**441**	**8**	**202**	**47**	**2**	**2146**
5-19	490	34	19	12	279	18	16	3	91	41	155	18	7	58	121	435	8	201	44	2	2052
20-99	9	3			2	1		2	44	1		4	1		9	5		1	2		84
100+	3								2			3				1			1		10
Assuit	**1010**	**8**	**31**	**15**	**60**	**16**	**20**	**28**	**119**	**76**	**113**	**67**	**23**	**118**	**162**	**486**	**26**	**199**	**71**	**4**	**2652**
5-19	979	8	31	15	59	16	18	26	117	76	112	62	23	116	146	480	22	194	65	4	2569
20-99	26				1		2	2	1		1	4		2	14	6	3	5	5		72
100+	5								1			1			2		1		1		11
Souhag	**602**	**9**	**19**	**1**	**49**	**12**	**7**	**10**	**110**	**49**	**119**	**26**	**24**	**54**	**157**	**364**	**14**	**178**	**60**	**2**	**1866**
5-19	585	9	18	1	49	12	5	10	109	47	119	24	22	53	141	360	13	178	55	2	1812
20-99	14		1				2		1	2		2	1	1	16	4	1		4		49
100+	3												1						1		5
Qena	**336**	**1**	**6**	**2**	**53**	**9**	**4**	**11**	**104**	**46**	**72**	**23**	**14**	**43**	**123**	**293**	**8**	**136**	**33**	**4**	**1321**
5-19	330	1	6	2	52	9	3	10	102	46	72	18	13	43	115	286	8	134	30	4	1284
20-99	5						1	1	1			2	1		8	6		2	3		30
100+	1				1				1			3				1					7
Aswan	**239**	**1**	**7**	**0**	**11**	**9**	**1**	**1**	**37**	**14**	**82**	**11**	**18**	**39**	**47**	**274**	**55**	**165**	**116**	**3**	**1130**
5-19	234	1	7		11	9	1	1	36	14	82	11	18	39	45	263	48	164	114	3	1101
20-99	4								1						2	10	3	1	2		23
100+	1															1	4				6
Red Sea\North Sinai\South Sinai	**164**	**6**	**2**	**2**	**25**	**7**	**2**	**0**	**78**	**17**	**18**	**14**	**45**	**46**	**72**	**428**	**687**	**554**	**257**	**2**	**2426**
5-19	161	4	2	2	22	7	2		73	17	18	13	35	46	69	415	378	535	197	2	1998
20-99	3	1			3				3				8		3	11	147	19	44		242
100+		1							2			1	2			2	162		16		186
Wadi al Jadid	**56**	**0**	**2**	**0**	**1**	**1**	**0**	**0**	**16**	**6**	**19**	**0**	**4**	**9**	**5**	**27**	**11**	**27**	**5**	**0**	**189**
5-19	47		2		1	1			13	6	19		4	9	5	27	10	27	5		176
20-99	6								3								1				10
100+	3																				3
Matrouh	**90**	**2**	**2**	**0**	**12**	**0**	**0**	**0**	**24**	**11**	**10**	**5**	**14**	**4**	**4**	**55**	**37**	**87**	**14**	**1**	**372**
5-19	83	1	2		12				24	11	10	4	11	4	3	54	33	87	12	1	352
20-99	6	1										1	2		1	1	3		1		16

	15	17	18	19	20	22	24	25	26	28	36	Other Manufacturing	45	50	51	52	Hotels	Restaurants	60-64	IT	Grand Total
100+	1												1				1		1		4
Grand Total	**21074**	**4907**	**6870**	**2683**	**4205**	**2181**	**1369**	**1747**	**4859**	**5352**	**7454**	**4774**	**2653**	**5935**	**12286**	**36364**	**1628**	**13377**	**7331**	**430**	**147479**

Source: CAPMAS 2010.

Panel sampling frame

	15	17	18	19	20	22	24	25	26	28	36	Other Manufacturing	45	50	51	52	Hotels	Restaurants	60-64	IT	Grand Total
Cairo	**11**	**25**	**58**	**24**	**1**	**2**	**17**	**11**	**15**	**50**	**12**	**34**	**30**	**0**	**0**	**0**	**29**	**83**	**62**	**0**	**464**
5-19	4	8	26	14	1		2	6	6	18	7	9	9				4	39	27		180
20-99	1	6	21	7		2	5	4	3	15	4	15	13				17	32	27		172
100+	6	11	11	3			10	1	6	17	1	10	8				8	12	8		112
Alexandria	**23**	**19**	**22**	**4**	**4**	**1**	**12**	**12**	**1**	**22**	**4**	**13**	**8**	**0**	**0**	**0**	**9**	**38**	**7**	**0**	**199**
5-19	1	5	10	1	1			4		6		1	4				1	22	6		62
20-99	3	3	2	2	2		5	6	1	9	3	2	4				5	15	1		63
100+	19	11	10	1	1	1	7	2		7	1	10					3	1			74
Port Said	**2**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**
5-19	1			1						1	2	1									6
20-99								1													1
100+	1		1							1											3
Suez	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
5-19										1											1
20-99	2																				2
100+	1																				1
Luxor	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**12**	**5**	**0**	**30**
5-19																	2	7	3		12
20-99	1																2	5	2		10
100+																	8				8
Damietta	**2**	**1**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**5**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**
5-19	2											2									4
20-99		1	1				1				2										5
100+								1		1	3	2									7
Dakahliya	**6**	**3**	**3**	**0**	**0**	**0**	**0**	**3**	**6**	**7**	**2**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**34**
5-19	2	1	2					2	1	5		1									14
20-99		1	1					1	4	1	2	1									11
100+	4	1							1	1		2									9
Sharkiya	**27**	**21**	**8**	**4**	**0**	**1**	**12**	**15**	**10**	**31**	**3**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**149**
5-19	8						3	3	6	8	2	4									34
20-99	6	5	2	2			3	7	3	9		4									41
100+	13	16	6	2		1	6	5	1	14	1	9									74
Qualyubia	**11**	**22**	**11**	**0**	**3**	**0**	**5**	**17**	**8**	**10**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**98**
5-19	3	5	1		3		2	5	1	2		1									23
20-99	1	15	6				1	7	2	4		2									38

100+	7	2	4				2	5	5	4		8									37
Kafr-El-Sheikh\Menoufiya\Beheira	**15**	**15**	**6**	**1**	**0**	**0**	**7**	**4**	**10**	**8**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**71**
5-19	9	4					1	3	4	3											24
20-99	4	5	1				3		1	2											16
100+	2	6	5	1			3	1	5	3		5									31
Gharbiya	**10**	**45**	**9**	**0**	**0**	**0**	**2**	**1**	**4**	**6**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**83**
5-19	2	13	2						2	2		2									23
20-99	2	18	5				1		1	4		3									34
100+	6	14	2				1	1	1			1									26
Ismailia	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
5-19									2												2
20-99	2																				2
100+	2											1									3
Giza	**17**	**11**	**21**	**1**	**1**	**0**	**9**	**10**	**14**	**14**	**4**	**34**	**9**	**0**	**0**	**0**	**24**	**48**	**22**	**0**	**239**
5-19	1	3	5					2	1	4		4	2					20	13		55
20-99	6	3	10				5	5	2	5	2	11	3				11	23	8		94
100+	10	5	6	1	1		4	3	11	5	2	19	4				13	5	1		90
Bani-Suef\Minya	**10**	**3**	**1**	**0**	**6**	**0**	**6**	**7**	**9**	**8**	**2**	**4**	**0**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**60**
5-19	4	2	1		5		3	6	5	3	2	2						1			34
20-99	2				1		3		3	5		2					3				19
100+	4	1						1	1												7
Fayoum	**5**	**1**	**1**	**0**	**0**	**0**	**2**	**1**	**4**	**2**	**1**	**2**	**0**	**0**	**0**	**0**	**2**	**4**	**0**	**0**	**25**
5-19	1		1					1	2			1					1	4			11
20-99	3						1		2	2	1	1									10
100+	1	1					1										1				4
Assuit	**4**	**9**	**0**	**0**	**0**	**0**	**0**	**5**	**2**	**2**	**6**	**2**	**0**	**0**	**0**	**0**	**2**	**5**	**0**	**0**	**37**
5-19	1	9						4	1	1	2	1						3			22
20-99	2							1	1	1	2	1					2	2			12
100+	1										2										3
Souhag	**7**	**4**	**2**	**0**	**2**	**0**	**1**	**5**	**1**	**7**	**1**	**5**	**0**	**0**	**1**	**0**	**2**	**1**	**4**	**0**	**44**
5-19	1	2	1		2			2	1	2	1	2					2	1	4		21
20-99	2	1	1				1	3		5		3									16
100+	4	1								1					1						7
Qena	**2**	**1**	**3**	**0**	**1**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**14**
5-19			2		1				1	1								2			7
20-99		1	1							1							2				5
100+	2																				2
Aswan	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**2**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**13**	**13**	**3**	**0**	**37**
5-19								1	2	1	2						2	11	2		21
20-99					1					1							5	2	1		10
100+																	6				6
Red Sea\North Sinai\South Sinai	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**52**	**17**	**2**	**0**	**72**
5-19									1								16	9			26
20-99																	13	6	2		21

	15	17	18	19	20	22	24	25	26	28	36	Other Manufac-turing	45	50	51	52	Hotels	Restaurants	60-64	IT	Grand Total
100+																	23	2			25
Wadi al Jadid	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5-19																					0
20-99																					0
100+																					0
Matrouh	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**7**
5-19																					0
20-99																	6				6
100+																	1				1
Grand Total	**160**	**180**	**147**	**35**	**19**	**4**	**74**	**94**	**91**	**175**	**44**	**143**	**47**	**0**	**1**	**0**	**157**	**224**	**105**	**0**	**1700**

Source: ES Egypt 2008.

Universe estimates

	15	17	18	19	20	22	24	25	26	28	36	Other Manufac-turing	45	50	51	52	Hotels	Restau rants	60-64	IT	Grand Total
Cairo	**100**	**96**	**246**	**67**	**17**	**73**	**58**	**75**	**77**	**130**	**87**	**57**	**235**	**143**	**359**	**451**	**77**	**295**	**301**	**27**	**2971**
5-19	4	8	26	14	1	0	2	6	6	19	0	7	9	9	0	0	4	39	27	0	181
20-99	81	53	187	46	14	62	38	55	59	84	62	41	184	111	328	423	54	244	245	23	2394
100+	15	35	33	7	2	11	18	14	12	27	25	9	42	23	31	28	19	12	29	4	396
Alexandria	**1517**	**217**	**790**	**214**	**380**	**235**	**145**	**197**	**253**	**475**	**546**	**283**	**427**	**427**	**1402**	**4199**	**104**	**1910**	**1052**	**48**	**14821**
5-19	1	5	10	1	1	0	0	4	0	6	0	0	1	4	0	0	1	22	6	0	62
20-99	3	3	2	2	2	0	5	6	1	9	0	3	2	4	0	0	5	15	1	0	63
100+	25	18	30	3	2	5	10	9	8	8	2	2	25	5	7	13	3	2	4	0	181
Port Said	**104**	**8**	**47**	**9**	**11**	**10**	**9**	**6**	**16**	**29**	**100**	**20**	**34**	**31**	**141**	**585**	**37**	**308**	**231**	**3**	**1739**
5-19	99	4	11	5	11	10	2	4	13	26	99	20	24	26	130	571	32	298	208	3	1596
20-99	4	3	5	3	0	0	5	1	3	2	1	0	8	4	11	13	3	10	21	0	97
100+	1	1	31	1	0	0	2	1	0	1	0	0	2	1	0	1	2	0	2	0	46
Suez	**167**	**6**	**14**	**2**	**4**	**1**	**8**	**1**	**33**	**25**	**37**	**11**	**34**	**22**	**49**	**208**	**60**	**176**	**145**	**4**	**1007**
5-19	148	4	12	1	4	1	1	1	19	19	36	10	14	16	44	199	22	173	133	4	861
20-99	11	0	1	0	0	0	3	0	10	6	1	0	11	4	5	9	27	3	10	0	101
100+	8	2	1	1	0	0	4	0	4	0	0	1	9	2	0	0	11	0	2	0	45
Luxor	**111**	**5**	**5**	**0**	**2**	**5**	**1**	**0**	**24**	**6**	**12**	**24**	**7**	**6**	**33**	**175**	**80**	**138**	**137**	**0**	**771**
5-19	68	5	5	0	2	5	1	0	24	6	12	24	7	5	32	173	52	133	124	0	678
20-99	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	19	5	13	0	43
100+	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	50
Damietta	**16**	**3**	**2**	**1**	**6**	**1**	**2**	**6**	**6**	**8**	**1**	**21**	**6**	**1**	**5**	**8**	**0**	**0**	**6**	**0**	**99**
5-19	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4
20-99	12	2	2	1	6	1	2	3	6	7	1	17	2	1	5	8	0	0	5	0	81
100+	2	1	0	0	0	0	0	3	0	1	0	4	2	0	0	0	0	0	1	0	14
Dakahliya	**40**	**27**	**47**	**0**	**5**	**2**	**5**	**6**	**68**	**17**	**1**	**3**	**30**	**1**	**48**	**18**	**5**	**10**	**6**	**0**	**339**
5-19	2	1	2	0	0	0	0	2	1	5	0	0	1	0	0	0	0	0	0	0	14
20-99	33	24	43	0	5	2	4	4	62	10	1	3	25	1	44	17	5	9	6	0	298
100+	5	2	2	0	0	0	1	0	5	2	0	0	4	0	4	1	0	1	0	0	27
Sharkiya	**134**	**96**	**48**	**14**	**15**	**22**	**88**	**65**	**77**	**77**	**11**	**20**	**210**	**13**	**145**	**136**	**0**	**6**	**20**	**0**	**1197**

																					Total
5-19	8	0	0	0	0	0	3	3	6	8	0	2	4	0	0	0	0	0	0	0	34
20-99	87	50	24	10	14	13	60	39	45	54	6	12	132	10	87	86	0	6	15	0	750
100+	39	46	24	4	1	9	25	23	26	15	5	6	74	3	58	50	0	0	5	0	413
Qualyubia	**74**	**264**	**99**	**20**	**13**	**21**	**44**	**70**	**38**	**60**	**13**	**15**	**154**	**6**	**36**	**63**	**0**	**1**	**17**	**0**	**1008**
5-19	3	5	1	0	3	0	2	5	1	2	0	0	1	0	0	0	0	0	0	0	23
20-99	53	244	80	17	10	19	34	58	19	49	12	10	129	5	31	53	0	1	16	0	840
100+	18	15	18	3	0	2	8	7	18	9	1	5	24	1	5	10	0	0	1	0	145
Kafr-El-Sheikh\Menoufiya\Beheira	**2502**	**512**	**256**	**45**	**346**	**86**	**80**	**89**	**549**	**317**	**363**	**510**	**304**	**74**	**821**	**2175**	**19**	**483**	**241**	**4**	**9776**
5-19	2405	459	231	41	342	78	54	81	411	304	363	504	253	68	777	2137	17	472	231	4	9232
20-99	82	36	17	2	4	5	20	7	132	9	0	5	31	5	37	32	2	11	8	0	445
100+	15	17	8	2	0	3	6	1	6	4	0	1	20	1	7	6	0	0	2	0	99
Gharbiya	**54**	**193**	**117**	**5**	**3**	**9**	**17**	**7**	**85**	**22**	**2**	**2**	**19**	**4**	**56**	**45**	**3**	**8**	**11**	**0**	**662**
5-19	2	13	2	0	0	0	0	0	2	2	0	0	2	0	0	0	0	0	0	0	23
20-99	45	147	98	5	3	9	15	5	81	19	2	2	15	3	54	41	3	8	11	0	566
100+	7	33	17	0	0	0	2	2	2	1	0	0	2	1	2	4	0	0	0	0	73
Ismailia	**359**	**8**	**39**	**7**	**25**	**5**	**24**	**18**	**46**	**36**	**57**	**38**	**40**	**21**	**207**	**320**	**15**	**144**	**39**	**5**	**1453**
5-19	335	7	20	3	25	4	16	13	45	35	57	37	28	19	190	304	11	141	38	5	1333
20-99	20	1	2	3	0	1	4	3	1	1	0	1	10	2	14	13	4	3	0	0	83
100+	4	0	17	1	0	0	4	2	0	0	0	0	2	0	3	3	0	0	1	0	37
Giza	**189**	**27**	**119**	**17**	**20**	**43**	**92**	**43**	**334**	**45**	**27**	**26**	**232**	**63**	**163**	**197**	**48**	**126**	**118**	**20**	**1949**
5-19	1	3	5	0	0	0	0	2	1	4	0	0	4	3	0	0	0	20	13	0	56
20-99	120	14	91	9	4	32	47	19	276	27	21	21	120	50	144	178	35	100	78	17	1403
100+	68	10	23	8	16	11	45	22	57	14	6	5	108	10	19	19	13	6	27	3	490
Bani-Suef\Minya	**2530**	**37**	**4**	**0**	**7**	**0**	**13**	**12**	**31**	**17**	**0**	**4**	**12**	**6**	**12**	**12**	**4**	**4**	**6**	**0**	**2711**
5-19	2472	30	1	0	5	0	3	7	5	3	0	2	3	0	0	0	0	1	0	0	2532
20-99	53	5	1	0	2	0	10	3	21	13	0	2	9	6	11	12	4	3	6	0	161
100+	5	2	2	0	0	0	0	2	5	1	0	0	0	0	1	0	0	0	0	0	18
Fayoum	**502**	**39**	**1**	**0**	**2**	**1**	**3**	**3**	**48**	**3**	**0**	**1**	**8**	**1**	**9**	**6**	**2**	**5**	**3**	**0**	**637**
5-19	490	34	1	0	0	0	0	1	2	0	0	0	1	0	0	0	1	4	0	0	534
20-99	9	3	0	0	2	1	1	2	44	3	0	1	4	1	9	5	0	1	2	0	88
100+	3	2	0	0	0	0	2	0	2	0	0	0	3	0	0	1	1	0	1	0	15
Assuit	**1010**	**11**	**31**	**15**	**60**	**17**	**20**	**29**	**119**	**77**	**118**	**116**	**67**	**23**	**162**	**486**	**26**	**199**	**71**	**4**	**2661**
5-19	979	11	31	15	59	16	18	26	117	76	116	112	62	23	146	480	22	194	65	4	2572
20-99	26	0	0	0	1	1	2	3	1	1	2	2	4	0	14	6	3	5	5	0	76
100+	5	0	0	0	0	0	0	0	1	0	0	2	1	0	2	0	1	0	1	0	13
Souhag	**603**	**11**	**19**	**1**	**49**	**12**	**7**	**13**	**111**	**58**	**54**	**119**	**30**	**24**	**158**	**364**	**14**	**178**	**60**	**2**	**1887**
5-19	585	9	18	1	49	12	5	10	109	47	53	119	24	22	141	360	13	178	55	2	1812
20-99	14	1	1	0	0	0	2	3	1	11	1	0	5	1	16	4	1	0	4	0	65
100+	4	1	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	1	0	10
Qena	**337**	**2**	**8**	**2**	**53**	**9**	**4**	**11**	**104**	**47**	**43**	**72**	**23**	**14**	**123**	**293**	**10**	**136**	**33**	**4**	**1328**
5-19	330	1	6	2	52	9	3	10	102	46	43	72	18	13	115	286	8	134	30	4	1284
20-99	5	1	2	0	0	0	1	1	1	1	0	0	2	1	8	6	2	2	3	0	36
100+	2	0	0	0	1	0	0	0	1	0	0	0	3	0	0	1	0	0	0	0	8
Aswan	**240**	**1**	**7**	**0**	**12**	**9**	**1**	**1**	**37**	**16**	**39**	**82**	**11**	**18**	**47**	**274**	**59**	**166**	**116**	**3**	**1139**
5-19	234	1	7	0	11	9	1	1	36	14	39	82	11	18	45	263	48	164	114	3	1101

20-99	5	0	0	0	1	0	0	0	1	2	0	0	0	0	2	10	5	2	2	0	30
100+	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	8
Red Sea\North Sinai\South Sinai	**164**	**6**	**2**	**2**	**25**	**7**	**2**	**0**	**78**	**17**	**46**	**18**	**14**	**45**	**72**	**428**	**687**	**556**	**257**	**2**	**2428**
5-19	161	4	2	2	22	7	2	0	73	17	46	18	13	35	69	415	378	535	197	2	1998
20-99	3	1	0	0	3	0	0	0	3	0	0	0	0	8	3	11	147	19	44	0	242
100+	0	1	0	0	0	0	0	0	2	0	0	0	1	2	0	2	162	2	16	0	188
Wadi al Jadid	**56**	**0**	**2**	**0**	**1**	**1**	**1**	**0**	**16**	**6**	**9**	**19**	**0**	**4**	**5**	**27**	**11**	**27**	**5**	**0**	**190**
5-19	47	0	2	0	1	1	0	0	13	6	9	19	0	4	5	27	10	27	5	0	176
20-99	6	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	1	0	0	0	11
100+	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Matrouh	**91**	**2**	**2**	**0**	**12**	**0**	**0**	**0**	**24**	**11**	**4**	**10**	**5**	**14**	**4**	**55**	**40**	**87**	**14**	**1**	**376**
5-19	83	1	2	0	12	0	0	0	24	11	4	10	4	11	3	54	33	87	12	1	352
20-99	6	1	0	0	0	0	0	0	0	0	0	0	1	2	1	1	6	0	1	0	19
100+	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	5
Grand Total	**21130**	**4994**	**6938**	**2704**	**4218**	**2194**	**1402**	**1802**	**4887**	**5486**	**5956**	**7486**	**4814**	**2681**	**12287**	**36364**	**1650**	**13489**	**7379**	**430**	**148291**

Original sample design

	15	17	18	19	20	22	24	25	26	28	36	Other Manufac-turing	45	50	51	52	Hotels	Restaurants	60-64	IT	Grand Total
Cairo	**18**	**33**	**41**	**53**	**23**	**40**	**23**	**29**	**17**	**32**	**19**	**12**	**11**	**19**	**18**	**42**	**9**	**20**	**11**	**30**	**500**
5-19	14	6	22	30	10	16	3	6	7	16	6	5	3	9	12	36	3	14	5	9	232
20-99	2	11	7	16	11	13	10	12	2	5	4	2	5	6	3	3	3	3	3	17	138
100+	2	16	12	7	2	11	10	11	8	11	9	5	3	4	3	3	3	3	3	4	130
Alexandria	**10**	**17**	**10**	**13**	**9**	**10**	**15**	**17**	**7**	**9**	**7**	**6**	**5**	**7**	**6**	**14**	**3**	**8**	**3**	**9**	**185**
5-19	6	3	3	3	3	3	3	3	3	3	3	2	1	1	2	8	1	3	1	7	62
20-99	2	4	2	8	4	5	3	5	2	2	2	2	3	4	2	3	1	3	1	2	60
100+	2	10	5	2	2	2	9	9	2	4	2	2	1	2	2	3	1	2	1	0	63
Port Said	**6**	**3**	**19**	**9**	**3**	**3**	**8**	**4**	**5**	**6**	**3**	**6**	**7**	**5**	**4**	**5**	**6**	**6**	**9**	**3**	**120**
5-19	3	2	3	5	3	3	1	2	3	3	3	2	2	4	2	2	1	3	1	3	51
20-99	2	0	5	3	0	0	5	1	2	2	0	2	4	1	2	2	3	3	7	0	44
100+	1	1	11	1	0	0	2	1	0	1	0	2	1	0	0	1	2	0	1	0	25
Suez	**10**	**6**	**6**	**2**	**4**	**1**	**8**	**1**	**17**	**9**	**4**	**17**	**9**	**6**	**4**	**4**	**11**	**6**	**11**	**4**	**140**
5-19	3	4	4	1	4	1	1	1	3	3	3	2	3	5	2	2	1	3	1	4	51
20-99	2	0	1	0	0	0	3	0	10	6	0	6	4	1	2	2	6	3	8	0	54
100+	5	2	1	1	0	0	4	0	4	0	1	9	2	0	0	0	4	0	2	0	35
Luxor	**11**	**5**	**4**	**0**	**2**	**5**	**1**	**0**	**3**	**4**	**3**	**2**	**6**	**9**	**3**	**3**	**20**	**8**	**16**	**0**	**105**
5-19	3	5	4	0	2	5	1	0	3	4	3	2	5	9	2	2	1	3	3	0	57
20-99	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	10	5	13	0	33
100+	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	15
Damietta	**5**	**5**	**5**	**4**	**8**	**2**	**5**	**4**	**5**	**4**	**34**	**4**	**3**	**4**	**4**	**8**	**1**	**3**	**7**	**3**	**118**
5-19	3	3	3	3	3	2	3	3	3	3	29	2	2	3	2	5	1	3	1	3	80
20-99	2	2	2	1	5	0	2	0	2	0	2	1	1	1	2	3	0	0	5	0	31
100+	0	0	0	0	0	0	0	1	0	1	3	1	0	0	0	0	0	0	1	0	7
Dakahliya	**10**	**11**	**8**	**3**	**8**	**5**	**8**	**6**	**10**	**6**	**4**	**6**	**2**	**2**	**6**	**9**	**2**	**7**	**2**	**5**	**120**
5-19	6	3	3	3	3	3	3	3	3	3	3	2	1	1	2	5	1	3	1	5	57
20-99	2	7	3	0	5	2	4	3	2	2	1	2	1	1	2	3	1	3	1	0	45
100+	2	1	2	0	0	0	1	0	5	1	0	2	0	0	2	1	0	1	0	0	18
Sharkiya	**10**	**9**	**7**	**8**	**6**	**11**	**8**	**10**	**7**	**7**	**7**	**6**	**3**	**5**	**6**	**11**	**1**	**6**	**3**	**4**	**135**
5-19	6	3	3	3	3	3	3	3	3	3	3	2	1	1	2	5	1	3	1	4	56
20-99	2	2	2	2	2	2	2	2	2	2	2	2	1	3	2	3	0	3	1	0	37
100+	2	4	2	3	1	6	3	5	2	2	2	2	1	1	2	3	0	0	1	0	42
Qualyubia	**10**	**9**	**7**	**8**	**5**	**6**	**7**	**10**	**7**	**7**	**7**	**6**	**3**	**5**	**6**	**11**	**1**	**4**	**3**	**3**	**125**
5-19	6	3	3	3	3	3	3	3	3	3	3	2	1	1	2	5	1	3	1	3	55
20-99	2	2	2	2	2	2	2	2	2	2	2	2	1	3	2	3	0	1	1	0	35
100+	2	4	2	3	0	1	2	5	2	2	2	2	1	1	2	3	0	0	1	0	35
Kafr-El-Sheikh\Menoufiya\Beheira	**10**	**10**	**7**	**7**	**5**	**5**	**9**	**6**	**7**	**7**	**6**	**6**	**7**	**1**	**6**	**11**	**2**	**6**	**3**	**4**	**125**
5-19	6	3	3	3	3	3	3	3	3	3	3	2	1	1	2	5	1	3	1	4	56
20-99	2	2	2	2	2	1	2	2	2	2	2	2	5	0	2	3	1	3	1	0	38
100+	2	5	2	2	0	1	4	1	2	2	1	2	1	0	2	3	0	0	1	0	31
Gharbiya	**10**	**16**	**7**	**6**	**5**	**5**	**7**	**6**	**7**	**6**	**4**	**6**	**3**	**2**	**5**	**10**	**2**	**6**	**2**	**2**	**117**

																					Total
5-19	6	10	3	3	3	3	3	3	3	3	3	2	1	1	2	5	1	3	1	2	61
20-99	2	2	2	3	2	2	2	2	2	2	1	2	1	1	2	3	1	3	1	0	36
100+	2	4	2	0	0	0	2	1	2	1	0	2	1	0	1	2	0	0	0	0	20
Ismailia	**7**	**5**	**19**	**6**	**5**	**5**	**11**	**10**	**4**	**4**	**3**	**6**	**3**	**3**	**6**	**6**	**4**	**6**	**2**	**5**	**120**
5-19	3	4	3	3	5	4	3	5	3	3	3	2	1	3	2	2	1	3	1	5	59
20-99	2	1	2	3	0	1	4	3	1	1	0	2	2	0	2	2	3	3	0	0	32
100+	2	0	14	0	0	0	4	2	0	0	0	2	0	0	2	2	0	0	1	0	29
Giza	**10**	**12**	**8**	**17**	**13**	**16**	**12**	**15**	**7**	**7**	**7**	**6**	**3**	**3**	**6**	**14**	**3**	**9**	**3**	**14**	**185**
5-19	6	3	3	3	3	3	3	3	3	3	3	2	1	1	2	8	1	3	1	1	56
20-99	2	2	2	6	2	4	2	3	2	2	2	2	1	1	2	3	1	3	1	10	53
100+	2	7	3	8	8	9	7	9	2	2	2	2	1	1	2	3	1	3	1	3	76
Bani-Suef\Minya	**17**	**8**	**5**	**2**	**5**	**3**	**12**	**6**	**10**	**9**	**4**	**4**	**7**	**1**	**5**	**4**	**2**	**5**	**5**	**6**	**120**
5-19	13	3	3	2	3	3	3	3	3	3	3	2	1	1	2	2	1	3	1	6	61
20-99	2	4	1	0	2	0	9	2	2	5	1	2	6	0	2	2	1	2	4	0	47
100+	2	1	1	0	0	0	0	1	5	1	0	0	0	0	1	0	0	0	0	0	12
Fayoum	**7**	**7**	**3**	**7**	**8**	**5**	**5**	**5**	**7**	**5**	**4**	**7**	**8**	**10**	**8**	**5**	**2**	**4**	**6**	**2**	**115**
5-19	3	3	3	7	6	4	3	3	3	3	3	2	7	10	2	2	1	3	3	2	73
20-99	2	3	0	0	2	1	1	2	2	2	1	2	1	0	6	2	0	1	2	0	30
100+	2	1	0	0	0	0	1	0	2	0	0	3	0	0	0	1	1	0	1	0	12
Assuit	**8**	**6**	**3**	**11**	**9**	**8**	**8**	**9**	**5**	**4**	**7**	**7**	**1**	**4**	**5**	**4**	**5**	**6**	**6**	**4**	**120**
5-19	3	6	3	11	8	8	6	7	3	3	3	2	1	2	2	2	1	3	1	4	79
20-99	2	0	0	0	1	0	2	2	1	1	2	4	0	2	2	2	3	3	4	0	31
100+	3	0	0	0	0	0	0	0	1	0	2	1	0	0	1	0	1	0	1	0	10
Souhag	**7**	**9**	**4**	**1**	**8**	**8**	**7**	**10**	**5**	**8**	**3**	**5**	**8**	**8**	**7**	**4**	**2**	**3**	**6**	**2**	**115**
5-19	3	7	3	1	8	8	5	7	3	3	3	2	6	7	2	2	1	3	1	2	77
20-99	2	1	1	0	0	0	2	3	1	5	0	3	1	1	4	2	1	0	4	0	31
100+	2	1	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	0	7
Qena	**7**	**2**	**6**	**2**	**12**	**9**	**4**	**11**	**5**	**6**	**4**	**7**	**6**	**7**	**6**	**5**	**3**	**5**	**4**	**4**	**115**
5-19	3	1	5	2	11	9	3	10	3	5	4	2	5	7	2	2	1	3	1	4	83
20-99	2	1	1	0	0	0	1	1	1	1	0	2	1	0	4	2	2	2	3	0	24
100+	2	0	0	0	1	0	0	0	1	0	0	3	0	0	0	1	0	0	0	0	8
Aswan	**8**	**1**	**7**	**0**	**12**	**9**	**1**	**1**	**10**	**10**	**11**	**5**	**3**	**5**	**4**	**5**	**12**	**5**	**3**	**3**	**115**
5-19	3	1	7	0	11	9	1	1	9	9	11	5	3	5	2	2	1	3	1	3	87
20-99	4	0	0	0	1	0	0	0	1	1	0	0	0	0	2	2	5	2	2	0	20
100+	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	8
Red Sea\North Sinai\South Sinai	**5**	**4**	**1**	**1**	**5**	**3**	**1**	**0**	**6**	**3**	**3**	**3**	**4**	**1**	**4**	**5**	**9**	**7**	**3**	**2**	**70**
5-19	3	2	1	1	3	3	1	0	3	3	3	2	1	1	2	2	3	3	1	2	40
20-99	2	1	0	0	2	0	0	0	2	0	0	0	2	0	2	2	3	3	1	0	20
100+	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0	1	3	1	1	0	10
Wadi al Jadid	**8**	**0**	**2**	**0**	**1**	**1**	**0**	**0**	**6**	**4**	**3**	**0**	**4**	**9**	**3**	**2**	**10**	**7**	**5**	**0**	**65**
5-19	3	0	2	0	1	1	0	0	3	4	3	0	4	9	3	2	9	7	5	0	56
20-99	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	6
100+	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Matrouh	**6**	**2**	**1**	**0**	**4**	**0**	**0**	**0**	**3**	**3**	**3**	**3**	**14**	**4**	**3**	**3**	**10**	**3**	**7**	**1**	**70**
5-19	3	1	1	0	4	0	0	0	3	3	3	2	11	4	2	2	3	3	5	1	51

	15	17	18	19	20	22	24	25	26	28	35	36		45	51	52	Hotels	Restaurants	60-64	Grand Total
20-99	2	1	0	0	0	0	0	0	0	0	0	1	2	0	1	1	6	0	1	0	15
100+	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	4
Grand Total	200	180	180	160	160	160	160	160	160	160	150	130	120	120	125	185	120	140	120	110	3000

Achieved interviews (based on a2, a4a and a6a)

	15	17	18	19	20	22	24	25	26	28	35	36	Other Manufac-turing	45	51	52	Hotels	Restaurants	60-64	Grand Total
Cairo	**22**	**45**	**41**	**66**	**4**	**28**	**25**	**35**	**58**	**52**	**36**	**16**	**21**	**57**	**18**	**56**	**50**	**48**	**76**	**754**
5-19	12	8	18	45	4	12	2	4	26	26	6	8	4	16	13	38	24	28	27	321
20-99	3	11	12	18	0	11	12	17	23	11	5	7	9	22	2	9	19	16	34	241
100+	7	26	11	3	0	5	11	14	9	15	25	1	8	19	3	9	7	4	15	192
Alexandria	**18**	**6**	**7**	**16**	**21**	**7**	**14**	**9**	**8**	**9**	**0**	**6**	**6**	**28**	**0**	**8**	**6**	**20**	**2**	**191**
5-19	13	1	3	8	12	0	5	2	4	1	0	3	1	13	0	5	4	14	1	90
20-99	1	2	1	6	8	3	5	5	4	4	0	3	2	10	0	3	1	6	0	64
100+	4	3	3	2	1	4	4	2	0	4	0	0	3	5	0	0	1	0	1	37
Port Said	**4**	**6**	**14**	**0**	**3**	**0**	**3**	**1**	**4**	**3**	**0**	**0**	**5**	**1**	**2**	**0**	**2**	**0**	**12**	**60**
5-19	1	2	2	0	3	0	0	0	2	2	0	0	2	0	1	0	1	0	10	26
20-99	3	3	2	0	0	0	1	1	2	1	0	0	3	1	1	0	1	0	0	19
100+	0	1	10	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15
Suez	**2**	**1**	**0**	**0**	**0**	**0**	**4**	**0**	**2**	**2**	**0**	**0**	**2**	**0**	**11**	**0**	**0**	**0**	**2**	**26**
5-19	0	0	0	0	0	0	0	0	0	2	0	0	0	0	10	0	0	0	2	14
20-99	0	0	0	0	0	0	1	0	2	0	0	0	0	0	1	0	0	0	0	4
100+	2	1	0	0	0	0	3	0	0	0	0	0	2	0	0	0	0	0	0	8
Luxor	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**20**	**4**	**1**	**28**
5-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	2	0	15
20-99	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	7
100+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
Damietta	**21**	**8**	**6**	**3**	**2**	**2**	**6**	**8**	**1**	**14**	**0**	**32**	**8**	**0**	**6**	**0**	**0**	**0**	**0**	**117**
5-19	10	6	4	3	1	1	5	2	1	7	0	15	6	0	6	0	0	0	0	67
20-99	9	1	2	0	1	1	1	3	0	7	0	15	1	0	0	0	0	0	0	41
100+	2	1	0	0	0	0	0	3	0	0	0	2	1	0	0	0	0	0	0	9
Dakahliya	**7**	**7**	**10**	**0**	**0**	**1**	**1**	**12**	**6**	**28**	**0**	**3**	**22**	**2**	**3**	**0**	**9**	**0**	**0**	**111**
5-19	5	3	3	0	0	0	0	8	1	18	0	0	14	1	3	0	9	0	0	65
20-99	0	3	6	0	0	1	1	4	4	9	0	3	5	1	0	0	0	0	0	37
100+	2	1	1	0	0	0	0	0	1	1	0	0	3	0	0	0	0	0	0	9
Sharkiya	**21**	**30**	**16**	**7**	**0**	**17**	**26**	**15**	**20**	**16**	**0**	**18**	**10**	**3**	**4**	**0**	**0**	**2**	**2**	**207**
5-19	9	6	2	1	0	3	10	4	9	4	0	7	3	2	2	0	0	2	0	64
20-99	6	9	4	2	0	8	12	5	7	7	0	6	2	1	1	0	0	0	2	72
100+	6	15	10	4	0	6	4	6	4	5	0	5	5	0	1	0	0	0	0	71
Qualyubia	**15**	**20**	**15**	**2**	**8**	**13**	**6**	**14**	**8**	**10**	**0**	**15**	**9**	**0**	**8**	**3**	**0**	**0**	**4**	**150**
5-19	6	4	4	1	6	7	2	3	1	3	0	5	2	0	2	3	0	0	2	51
20-99	3	10	6	0	2	4	2	6	4	3	0	5	2	0	4	0	0	0	2	53
100+	6	6	5	1	0	2	2	5	3	4	0	5	5	0	2	0	0	0	0	46
Kafr-El-Sheikh	**30**	**48**	**32**	**1**	**9**	**9**	**7**	**1**	**19**	**4**	**0**	**5**	**62**	**2**	**2**	**0**	**4**	**0**	**4**	**239**

Menoufiya\Beheira																				
5-19	13	14	8	0	6	1	1	1	3	1	0	3	20	1	0		3	0	0	75
20-99	15	19	17	0	3	5	2	0	10	0	0	2	24	1	0		1	0	3	102
100+	2	15	7	1	0	3	4	0	6	3	0	0	18	0	2		0	0	1	62
Gharbiya	**5**	**36**	**33**	**1**	**7**	**2**	**1**	**5**	**5**	**23**	**0**	**5**	**1**	**2**	**2**	**0**	**7**	**0**	**0**	**135**
5-19	2	5	9	0	6	0	0	1	2	5	0	4	0	1	0	0	7	0	0	42
20-99	0	25	8	1	1	2	1	3	2	17	0	1	1	1	2	0	0	0	0	65
100+	3	6	16	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	28
Ismailia	**8**	**1**	**15**	**3**	**0**	**0**	**4**	**4**	**4**	**2**	**0**	**1**	**3**	**3**	**6**	**0**	**1**	**0**	**0**	**55**
5-19	2	0	3	2	0	0	2	0	3	1	0	0	1	3	4	0	1	0	0	22
20-99	3	1	2	0	0	0	2	3	1	1	0	1	2	0	2	0	0	0	0	18
100+	3	0	10	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	15
Giza	**33**	**13**	**19**	**15**	**12**	**26**	**27**	**18**	**19**	**14**	**6**	**16**	**19**	**29**	**15**	**56**	**26**	**38**	**31**	**432**
5-19	16	3	5	4	9	6	11	3	7	4	0	9	3	12	5	40	10	17	11	175
20-99	8	4	6	9	2	9	7	5	5	5	1	3	9	12	5	13	9	18	14	144
100+	9	6	8	2	1	11	9	10	7	5	5	4	7	5	5	3	7	3	6	113
Bani-Suef\Minya	**28**	**7**	**7**	**0**	**7**	**0**	**10**	**9**	**17**	**12**	**0**	**3**	**9**	**0**	**7**	**0**	**2**	**1**	**0**	**119**
5-19	24	2	4	0	7	0	7	5	7	1	0	1	8	0	7	0	0	1	0	74
20-99	1	5	1	0	0	0	3	3	9	10	0	2	1	0	0	0	2	0	0	37
100+	3	0	2	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	8
Fayoum	**4**	**1**	**0**	**0**	**0**	**0**	**5**	**4**	**7**	**6**	**0**	**2**	**5**	**0**	**4**	**0**	**0**	**1**	**0**	**39**
5-19	2	0	0	0	0	0	3	2	4	3	0	1	3	0	3	0	0	1	0	22
20-99	1	0	0	0	0	0	0	2	3	3	0	1	1	0	1	0	0	0	0	12
100+	1	1	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	5
Assuit	**17**	**5**	**1**	**0**	**1**	**1**	**0**	**15**	**6**	**7**	**0**	**7**	**12**	**0**	**1**	**0**	**1**	**1**	**0**	**75**
5-19	7	5	1	0	0	0	0	12	5	6	0	6	10	0	1	0	0	0	0	53
20-99	6	0	0	0	1	1	0	3	1	1	0	1	1	0	0	0	1	1	0	17
100+	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	5
Souhag	**7**	**6**	**2**	**0**	**8**	**0**	**2**	**4**	**0**	**16**	**0**	**5**	**7**	**0**	**3**	**0**	**5**	**0**	**1**	**66**
5-19	1	6	1	0	8	0	0	2	0	9	0	5	1	0	3	0	5	0	1	42
20-99	2	0	1	0	0	0	2	2	0	7	0	0	5	0	0	0	0	0	0	19
100+	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	5
Qena	**3**	**1**	**5**	**0**	**1**	**0**	**3**	**1**	**4**	**3**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**25**
5-19	3	1	3	0	1	0	3	0	3	3	0	0	0	0	0	0	0	0	0	17
20-99	0	0	2	0	0	0	0	1	1	0	0	0	1	0	0	0	2	0	0	7
100+	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Aswan	**6**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**1**	**4**	**0**	**2**	**0**	**0**	**0**	**0**	**7**	**5**	**2**	**30**
5-19	0	0	0	0	1	1	0	1	1	2	0	2	0	0	0	0	3	4	1	16
20-99	5	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	1	1	10
100+	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	4
Red Sea\North Sinai\South Sinai	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**12**	**3**	**18**
5-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	11	3	15
20-99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
100+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Wadi al Jadid	**5**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**

5-19	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4
20-99	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
100+	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Matrouh	**6**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**
5-19	2	0	0	0	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	7
20-99	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
100+	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	**263**	**241**	**223**	**114**	**88**	**108**	**145**	**156**	**189**	**228**	**42**	**136**	**203**	**127**	**95**	**123**	**144**	**132**	**140**	**2897**

A.2.2. Status codes

	TOTAL	FRESH	PANEL
Complete interviews **(Total)**	2897	2256	641
Complete interviews (not eligible for innovation)	978	796	182
Complete interviews (with innovation)	1722	1353	369
Complete interviews (eligible, but refused to answer innovation)	197	107	90
Incomplete interviews	91	35	56
Elegible in process	48	27	21
Refusals	220	149	71
Quota is met	85	69	16
Out of target	451	302	149
Impossible to contact	1214	1141	73
Ineligible - coop.	4	2	2
Refusal to the Screener	944	536	408
Total	5954	4517	1437

		TOTAL	FRESH	PANEL
Eligible	1.Elegible establishment (Correct name and address)	2922	2298	624
	2. Elegible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	6	3	3
	3. Elegible establishment (Different name but same address - the firm/establishment changed its name)	133	54	79
	4. Elegible establishment (Wrong address - the firm/establishmen has changed address and the address could be found)	267	181	86
	16. Panel firm - now less than five employees	13	0	13
Ineligible	5. The establishment has less than 5 permanent full time employees	35	35	0
	6. The firm discontinued businesses	125	73	52
	7. Not a business: private household	277	183	94
	8. Ineligible activity: education, agriculture, finances, governments…	14	11	3
Unobtainable	91. No reply *(after having called in different days of the week and in different business hours)*	46	46	0
	92. Line out of order	42	42	0
	93. No tone	11	11	0
	94. Phone number does not exist	176	176	0
	10. Answering machine	21	21	0
	11. Fax line - data line	20	20	0
	12. Wrong address/ moved away and could not get the new references	898	825	73
	13. Refuses to answer the screener	944	536	408
	14. In process *(the establishment is being called/ is being contacted - previous to ask the screener)*	0	0	0
	151. Out of target - outside the covered regions, firm moved abroad	0	0	0
	152. Out of target - firm moved abroad	0	0	0
	153. Impossible to find	4	2	2
	154. Establishment is HQ without production or sales in the location	0	0	0
	156. Duplicate in the sample	0	0	0
	Total	5954	4517	1437

A.2.3. Survey and item non-response

The number of completed interviews per contacted establishment was 0.45. This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sampling frame, as represented by the presence of ineligible units. The number of rejections per contact was 0.33.

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A.2.4. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local agency 1	Name: Pan Arab Research Center (PARC) Country: Egypt Year started operations:
Name of Project Manager	
Name and position of other key persons of the project	
Enumerators involved	70
Other staff involved	

Local agency 2	Name: American University Cairo (AUC) Country: Egypt Year started operations:
Name of Project Manager	
Name and position of other key persons of the project	
Enumerators involved	Enumerators: 30
Other staff involved	Field supervisors: 6 Field manager: 1

Sample Frame

Characteristic of sample frame used	Variables: Name of establishment, address, activity, legal status, date of establish and registration, number of employees
Source	GAFI and Bureau van Dijk's Orbis database
Year of publication	2013
Comments on the quality of the sample frame	Some addresses were not clear with a wrong, old or not updated frame. Moreover some telephone numbers were wrong or out of service. Enterprises changed their activities. Some enterprises were no longer active - ranging from 5 months up to 10 years either for bankruptcy, taxes, death, and heritage. Most of the industrial areas in Upper Egypt governorates are influenced by the unstable political conditions which influenced investment, especially wood and texture
Year and organisation that conducted the last economic census	2010, CAPMAS
Other sources for companies statistics	

Sample

Comments/problems on sectors and regions selected in the sample	Six enterprises were located in Abou-Simbel, 300 kilometers from Aswan. There are also some enterprises affiliated to the Red Sea and South Sinai governorate that are 200/300 kilometers away from the governorate. In the industrial areas, it was so difficult to move on foot because there was a very long distance (10/20 km) between the enterprises. That condition lead to quitting of most of the researchers. Some researchers spent all day and didn't get one completed questionnaire. Some of the enterprises in the touristic areas were closed due to security issues and scarcity of tourists. Fieldwork did not commence in North Sinai due to security concerns.
Comments on the response rate	
Comments on the sample design	

Fieldwork

Date of fieldwork	PARC: June 2013 – August 2014, with additional quality control occurring until February 2015

Country	Egypt
Number of completed interviews	PARC: 1213; AUC: 1721
Problems found during fieldwork	
Other observations	

Questionnaires

Problems for the understanding of questions	
Problems found in the navigability of questionnaires (for example, skip patterns)	Some mistakes in coding of the tablet affected skip patterns, requiring callbacks.
Comments on questionnaire length	
Suggestions or other comments on the questionnaires	

Quality control

Fieldwork monitoring	
Data checking procedures	Callbacks were made at multiple stages of the fieldwork process. Callbacks were also made to correct invalid responses, to get more detail on the string variables and to complete questions the respondent originally declined to answer.
Number of respondents selected for back-checking	
Selection procedures	
Who carried out back-checks?	
Mode of contact	
Number of completed interviews back-checked	
Number of non-responses back-checked	
Results of alternative method of contacting non-respondents	
Description of what was covered in the back-checks	
Number of completed interviews that were rejected and why	Due to a suspicious pattern of responses or ineligible business activities, 87 firms were removed from the final dataset.

Database

Data entry program chosen	Raw data was directly uploaded from the tablets and computer CATI system, eliminating the need for data entry.
Comments on the data entry program	
Comments on the data cleaning	Cleaning was done to correct variable names and value labels, as well as to insert the 'control variables' (a1-a6) that did not come with the data. Data from call backs was merged into the dataset, as were translated string variables.

Country situation

General aspects of economic, political or social situation of the country that could affect the results of the survey	Significant political unrest, but did not affect fieldwork.
Relevant country events that occurred during fieldwork	
Other aspects	

A.3   Israel

A.3.1. Sampling structure and implementation

The sampling frame for Israel was obtained from Dun and Bradstreet. Samples were selected separately by Dun and Bradstreet, following specifications and designs provided by the World Bank, based upon universe tabulations from the 2011 estimates from the Israeli Bureau of Statistics.

The quality of the frame was assessed at the onset of the project. The frame proved to be useful though it showed positive rates of non-eligibility, repetition, non-existent units, etc. These problems are typical of establishment surveys, but given the impact these inaccuracies may have on the results, adjustments were needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of contacts to complete the survey was 5.1% (78 out of 1537 establishments).

Regional stratification was defined in five regions. These regions are Tel Aviv, Haifa and the North, Central, Jerusalem and South. Table below shows the grouping of official administrative districts into these five regions.

Regions (districts)	Grouping used for stratification purposes in MENA ES
Tel Aviv	Tel Aviv
Haifa	Haifa and the North
North	
Central	Central
Jerusalem	Jerusalem
South	South

Sample frame

Region	Employees	Food & Beverages	Other Manufacturing	Retail	Other Services	Grand Total
Tel Aviv	5-19	29	56	80	72	237
	20-99	33	49	36	20	138
	100+	13	26	25	25	89
	Total	**75**	**131**	**141**	**117**	**464**
Haifa and the North	5-19	24	40	52	148	264
	20-99	52	44	24	20	140
	100+	27	24	21	20	92
	Total	**103**	**108**	**97**	**188**	**496**
Central	5-19	25	19	20	20	84
	20-99	25	20	20	20	85
	100+	21	25	25	20	91
	Total	**71**	**64**	**65**	**60**	**260**
Jerusalem	5-19	59	36	57	20	172
	20-99	30	60	63	20	173
	100+	9	23	13	20	65
	Total	**98**	**119**	**133**	**60**	**410**
South	5-19	24	20	20	20	84
	20-99	25	20	20	20	85
	100+	13	24	12	20	69
	Total	**62**	**64**	**52**	**60**	**238**
Grand Total		**409**	**486**	**488**	**485**	**1868**

Source: Dun & Bradstreet.

Universe estimates

Region	Employees	Food & Beverages	Other Manufacturing	Retail	Other Services	Grand Total
Tel Aviv	5-19	99	1188	1841	4692	7820
	20-99	62	326	340	1673	2401
	100+	13	76	68	289	446
	Total	**174**	**1590**	**2248**	**6655**	**10667**
Haifa and the North	5-19	243	1089	1494	6565	9391
	20-99	122	591	242	1465	2420
	100+	45	179	22	101	347
	Total	**410**	**1859**	**1759**	**8130**	**12158**
Central	5-19	169	948	1745	4936	7798
	20-99	104	496	416	1626	2642
	100+	29	149	83	262	523
	Total	**302**	**1593**	**2245**	**6823**	**10963**
Jerusalem	5-19	73	243	565	1924	2805
	20-99	31	85	111	588	815
	100+	8	24	12	50	94
	Total	**112**	**352**	**688**	**2562**	**3714**
South	5-19	86	383	598	2407	3474
	20-99	45	236	133	715	1129
	100+	13	64	13	102	192
	Total	**144**	**683**	**744**	**3224**	**4795**
Grand Total		**1142**	**6077**	**7684**	**27394**	**42297**

Source: Israeli Central Bureau of Statistics, 2011.

Original sample design

Region	Employees	Food & Beverages	Other Manufacturing	Retail	Other Services	Grand Total
Tel Aviv	5-19	6	14	19	18	57
	20-99	13	11	9	5	38
	100+	9	5	5	5	25
	Total	**28**	**30**	**34**	**28**	**120**
Haifa and the North	5-19	5	10	13	37	65
	20-99	11	11	6	5	32
	100+	7	5	5	5	22
	Total	**23**	**26**	**24**	**47**	**120**
Central	5-19	5	5	5	5	20
	20-99	5	5	5	5	20
	100+	5	5	5	5	20
	Total	**15**	**15**	**15**	**15**	**60**
Jerusalem	5-19	12	9	11	5	37
	20-99	18	14	13	5	50
	100+	8	11	9	5	33
	Total	**38**	**34**	**33**	**15**	**120**
South	5-19	5	5	5	5	20
	20-99	5	5	5	5	20
	100+	5	5	5	5	20
	Total	**15**	**15**	**15**	**15**	**60**
Grand Total		**120**	**120**	**120**	**120**	**480**

Achieved sample (based on a2, a4a and a6a)

Region	Employees	Food & Beverages	Other Manufacturing	Retail	Other Services	Grand Total
Tel Aviv	5-19	14	17	18	19	68
	20-99	11	12	10	3	36
	100+	0	4	3	5	12
	Total	**25**	**33**	**31**	**27**	**116**
Haifa and the North	5-19	8	11	14	37	70
	20-99	18	11	9	5	43
	100+	4	8	6	7	25
	Total	**30**	**30**	**29**	**49**	**138**
Central	5-19	12	5	4	5	26
	20-99	11	3	6	4	24
	100+	5	6	6	8	25
	Total	**28**	**14**	**16**	**17**	**75**
Jerusalem	5-19	16	9	14	5	44
	20-99	5	15	14	3	37
	100+	2	10	2	7	21
	Total	**23**	**34**	**30**	**15**	**102**
South	5-19	6	4	7	5	22
	20-99	5	5	5	5	20
	100+	0	3	1	6	10
	Total	**11**	**12**	**13**	**16**	**52**
Grand Total		**117**	**123**	**119**	**124**	**483**

A.3.2. Status codes

	TOTAL
Complete interviews **(Total)**	483
Complete interviews (not eligible for innovation)	244
Complete interviews (with innovation)	230
Complete interviews (eligible, but refused to answer innovation)	9
Incomplete interviews	0
Elegible in process	0
Refusals	138
Quota is met	41
Out of target	60
Impossible to contact	238
Ineligible - coop.	18
Refusal to the Screener	559
Total	1537

		TOTAL
Eligible	1.Elegible establishment (Correct name and address)	592
	2. Elegible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	4
	3. Elegible establishment (Different name but same address - the firm/establishment changed its name)	21
	4. Elegible establishment (Wrong address - the firm/establishmen has changed address and the address could be found)	45
	16. Panel firm - now less than five employees	0
Ineligible	5. The establishment has less than 5 permanent full time employees	45
	6. The firm discontinued businesses	10
	7. Not a business: private household	1
	8. Ineligible activity: education, agriculture, finances, governments…	4
Unobtainable	91. No reply *(after having called in different days of the week and in different business hours)*	211
	92. Line out of order	1
	93. No tone	2
	94. Phone number does not exist	0
	10. Answering machine	8
	11. Fax line - data line	0
	12. Wrong address/ moved away and could not get the new references	16
	13. Refuses to answer the screener	559
	14. In process *(the establishment is being called/ is being contacted - previous to ask the screener)*	0
	151. Out of target - outside the covered regions, firm moved abroad	8
	152. Out of target - firm moved abroad	1
	153. Impossible to find	9
	154. Establishment is HQ without production or sales in the location	0
	156. Duplicate in the sample	0
	Total	1537

A.3.3. Survey and item non-response

The number of completed interviews per contacted establishment was 0.31. This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sampling frame, as represented by the presence of ineligible units. The number of rejections per contact was 0.45.

A.3.4. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local agency	Name: Public Opinion Research of Israel (PORI) Country: Israel Membership of international organisation: Active since:
Name of Project Manager	
Name and position of other key persons of the project	
Enumerators involved	Enumerators: 9
Other staff involved	

Sampling frame

Characteristic of sample frame used	Variables: Name of establishment, address, activity, telephone number, number of employees
Source	Dun and Bradstreet
Year of publication	2013
Comments on the quality of the sample frame	The quality of the frame was assessed at the onset of the project through visits to a random subset of firms and local contractor knowledge. The sample frame was not immune from the typical problems found in establishment surveys: positive rates of non- eligibility, repetition, non-existent units, etc.
Year and organisation that conducted the last economic census	2011, Central Bureau of Statistics
Other sources for companies statistics	None

Sample

Comments/problems on sectors and regions selected in the sample	
Comments on the response rate	
Comments on the sample design	

Fieldwork

Date of fieldwork	April 2013 – March 2014, with call-backs and data finalisation lasting until June 2014
Country	Israel
Number of completed interviews	483
Problems found during fieldwork	Some enterprises refused to disclose financial data, requiring significant number of callbacks.
Other observations	

Questionnaires

Problems for the understanding of questions (write question number)	
Problems found in the navigability of questionnaires (for example, skip patterns)	Tablets were extremely useful for navigating questionnaire due to automatic implementation of skip patterns.
Comments on questionnaire length	
Suggestions or other comments on the questionnaires	

Quality control

Fieldwork monitoring	
Data checking procedures	Callbacks were made at multiple stages of the fieldwork process. PORI conducted ongoing callbacks at the direction of Gallup Europe throughout the fieldwork period. Callbacks were also made to correct invalid responses, to get more detail on the string variables and to complete questions the respondent originally declined to answer.
Number of respondents selected for back-checking	
Selection procedures	
Who carried out back-checks?	
Mode of contact	
Number of completed interviews back-checked	
Number of non-responses back-checked	
Results of alternative method of contacting non-respondents	
Description of what was covered in the back-checks	
Number of completed interviews that were rejected and why	

Database

Data entry program chosen	Raw data was directly uploaded from the tablets and computer CATI system, eliminating the need for data entry.
Comments on the data entry program	All verifications and consistency checks (for tablet-based interviews) were applied on PC-tablet applications. An error message pops up when entering a wrong value and some error messages show up in red for sensitive questions.
Comments on the data cleaning	Cleaning was done to correct variable names and value labels, as well as to insert the 'control variables' (a1-a6) that did not come with the data. Data from call backs was merged into the dataset, as were translated string variables.

Country situation

General aspects of economic, political or social situation of the country that could affect the results of the survey	
Relevant country events that occurred during fieldwork	
Other aspects	

A.4 Jordan

A.4.1. Sampling structure and implementation

Sample frames were obtained from several sources. The first was supplied by the World Bank and consisted of enterprises interviewed in a recent SME survey. The World Bank required that attempts should be made to re-interview establishments responding to the enterprise survey where they were within the selected geographical regions and met eligibility criteria. That sample is referred to as the

Panel.[6] The remaining sample frames were obtained from the Amman Chamber of Industry, the Amman Chamber of Commerce, the Irbid Chamber of Industry, the Irbid Chamber of Commerce, the Zarqa Chamber of Industry, the Zarqa Chamber of Commerce, the Aqaba Chamber of Industry, the Aqaba Chamber of Commerce, the Balqa Chamber of Industry, the Balqa Chamber of Commerce, and Bureau van Dijk's Orbis database (for the validation of large-sized firms). In several categories, employee size information was not available. In these cases, the survey design was adjusted to include "no information" as a size-based stratum. For analysis and weighting purposes, these firms were considered by the virtue of their realised interviews.

The quality of the frame was assessed at the onset of the project. The frame proved to be useful though it showed positive rates of non-eligibility, repetition, non-existent units, etc. These problems are typical of establishment surveys, but given the impact these inaccuracies may have on the results, adjustments were needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of contacts to complete the survey was 16.7% (183 out of 2104 establishments).

Regional stratification was defined in 5 regions. These regions are Amman, Irbid, Zarqa, Aqaba and Balqa.

Regions (governorates)	Grouping used for stratification purposes in MENA ES
Amman	Amman
Irbid	Irbid
Zarqa	Zarqa
Aqaba	Aqaba
Balqa	Balqa
Aljun	Not covered
Jarash	
Madaba	
Karak	
Mafraq	
Tafilah	
Ma'an	

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[6] In the case of the World Bank SME study, a small panel of firms was re-visited and included. The stratification categories provided in other supplementary lists were drawn as shown above, then confirmed as eligible for MENA ES, by strata in the course of screening and the ES process.

Fresh sampling frame

Region	Employees	Manufacturing			Retail/Wholesale	Other Services	Grand Total
		Food	Apparel	Other			
Amman	Unknown*				16180	6539	22719
	Small						0
	Medium						0
	Large				7	18	25
	1-9	38	115	1424			1577
	10-49	20	53	382			455
	50-250	15	3	71			89
	250+	8	5	19			32
	Unknown (Amman M)*	907	616	6888			8411
	Total	**988**	**792**	**8784**	**16187**	**6557**	**33308**
Irbid	Unknown*				1638	687	2325
	Small	20	8	76			104
	Medium	11	9	20			40
	Large		15	6			21
	Total	**31**	**32**	**102**	**1638**	**687**	**2490**
Zarqa	Unknown*				6509	3635	10144
	Small	112	42	336			490
	Medium	40	7	75			122
	Large	18	16	19			53
	Total	**170**	**65**	**430**	**6509**	**3635**	**10809**
Aqaba	Unknown*				172	228	400
	Small	5		14			19
	Medium	1		7			8
	Large	3		2			5
	Total	**9**	**0**	**23**	**172**	**228**	**432**
Balqa	Unknown*	18	1	17	2117	2325	4478
	Total	**18**	**1**	**17**	**2117**	**2325**	**4478**
Grand Total		**1216**	**890**	**9356**	**26623**	**13432**	**51517**

Sources: As noted in the text above.

Note: * Includes micro firms (with less than 5 employees) accounting for differentiation from Department of Statistics universe estimates.

Panel sampling frame

Region	Employees	Manufacturing			Retail/ Wholesale	Other Services	Grand Total
		Food	Apparel	Other			
Amman	5-19		7	23		51	81
	20-99		23	58		102	183
	100+		5	16		38	59
	Total		**35**	**97**		**191**	**323**
Zarqa	5-19		2	17		22	41
	20-99		4	16		21	41
	100+		2	11		14	27
	Total		**8**	**44**		**57**	**109**
Grand Total			**43**	**141**		**248**	**432**

Source: WB SME survey (Amman and Zarqa only).

Universe estimates

Region	Employees	Manufacturing			Retail/Wholesale	Other Services	Grand Total
		Food	Apparel	Other			
Amman	5-19	317	114	1103	880	2388	4802
	20-99	113	19	299	134	648	1213
	100+	32	14	103	21	148	318
	Total	**462**	**147**	**1505**	**1035**	**3184**	**6333**
Irbid	5-19	94	9	174	77	221	575
	20-99	12	14	14	3	18	61
	100+	0	15	3	2	3	23
	Total	**106**	**38**	**191**	**82**	**242**	**659**
Zarqa	5-19	89	28	255	143	291	806
	20-99	25	2	47	19	16	109
	100+	15	11	20	0	0	46
	Total	**129**	**41**	**322**	**162**	**307**	**961**
Aqaba	5-19	8	3	44	82	181	318
	20-99	1	0	2	4	32	39
	100+	0	0	4	0	9	13
	Total	**9**	**3**	**50**	**86**	**222**	**370**
Balqa	5-19	35	2	43	26	51	157
	20-99	4	2	8	1	7	22
	100+	1	0	7	0	4	12
	Total	**40**	**4**	**58**	**27**	**62**	**191**
Grand Total		**746**	**233**	**2126**	**1392**	**4017**	**8514**

Source: 2011 Establishment Census, Department of Statistics.

Note: In some cases, full counts by the ES universe tables were not available via the Department of Statistics; a simple iterative fitting algorithm was used to impute the missing dimension.

Original sample design

Region	Employees	Manufacturing			Retail/Wholesale	Other Services	Grand Total
		Food	Apparel	Other			
Amman	5-19	10	10	24	22	20	86
	20-99	10	15	15	18	13	71
	100+	11	11	5	11	5	43
	Total	**31**	**36**	**44**	**51**	**38**	**200**
Irbid	5-19	18	7	11	18	6	61
	20-99	10	11	11	2	6	40
	100+	0	12	2	2	2	18
	Total	**28**	**30**	**25**	**22**	**14**	**120**
Zarqa	5-19	8	10	6	6	6	36
	20-99	20	4	6	15	6	51
	100+	12	9	11	0	1	33
	Total	**40**	**23**	**23**	**21**	**13**	**120**
Aqaba	5-19	6	2	10	17	13	48
	20-99	1	0	2	3	24	29
	100+	0	0	3	0	9	12
	Total	**7**	**2**	**15**	**20**	**46**	**90**
Balqa	5-19	5	6	5	8	5	29
	20-99	7	2	12	2	5	28
	100+	2	1	6	0	4	13
	Total	**14**	**8**	**23**	**11**	**14**	**70**
Grand Total		**120**	**100**	**130**	**125**	**125**	**600**

Achieved sample (based on a2, a4a and a6b)

Region	Employees	Manufacturing			Retail/Wholesale	Other Services	Grand Total
		Food	Apparel	Other			
Amman	5-19	12	11	22	25	22	92
	20-99	17	18	19	24	23	101
	100+	6	5	7	12	9	39
	Total	**35**	**34**	**48**	**61**	**54**	**232**
Irbid	5-19	4	1	8	19	4	36
	20-99	15	6	13	3	7	44
	100+	1	16	4	2	0	23
	Total	**20**	**23**	**25**	**24**	**11**	**103**
Zarqa	5-19	5	8	11	7	6	37
	20-99	16	2	9	10	4	41
	100+	17	10	12	0	0	39
	Total	**38**	**20**	**32**	**17**	**10**	**117**
Aqaba	5-19	3	0	9	16	10	38
	20-99	3	0	4	3	18	28
	100+	1	0	1	0	1	3
	Total	**7**	**0**	**14**	**19**	**29**	**69**
Balqa	5-19	10	1	7	9	7	34
	20-99	3	0	5	3	5	16
	100+	1	0	1	0	1	2
	Total	**14**	**1**	**13**	**12**	**12**	**52**
Grand Total		**114**	**78**	**132**	**133**	**116**	**573**

A.4.2. Status codes

	TOTAL
Complete interviews **(Total)**	573
Complete interviews (not eligible for innovation)	245
Complete interviews (with innovation)	324
Complete interviews (eligible, but refused to answer innovation)	4
Incomplete interviews	0
Elegible in process	0
Refusals	56
Quota is met	0
Out of target	182
Impossible to contact	1176
Ineligible - coop.	1
Refusal to the Screener	116
Total	2104

		TOTAL
Eligible	1.Elegible establishment (Correct name and address)	68
	2. Elegible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	3
	3. Elegible establishment (Different name but same address - the firm/establishment changed its name)	42
	4. Elegible establishment (Wrong address - the firm/establishmen has changed address and the address could be found)	512
	16. Panel firm - now less than five employees	4
Ineligible	5. The establishment has less than 5 permanent full time employees	60
	6. The firm discontinued businesses	54
	7. Not a business: private household	18
	8. Ineligible activity: education, agriculture, finances, governments…	50
Unobtainable	91. No reply *(after having called in different days of the week and in different business hours)*	390
	92. Line out of order	25
	93. No tone	5
	94. Phone number does not exist	75
	10. Answering machine	1
	11. Fax line - data line	3
	12. Wrong address/ moved away and could not get the new references	677
	13. Refuses to answer the screener	116
	14. In process *(the establishment is being called/ is being contacted - previous to ask the screener)*	0
	151. Out of target - outside the covered regions, firm moved abroad	0
	152. Out of target - firm moved abroad	1
	153. Impossible to find	0
	154. Establishment is HQ without production or sales in the location	0
	156. Duplicate in the sample	0
	Total	2104

A.4.3. Survey and item non-response

The number of completed interviews per contacted establishment was 0.60. This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The number of rejections per contact was 0.21.

A.4.4. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local agency	Name: Dajani Consulting Country: Jordan Membership of international organisation: Activities since:
Name of Project Manager	
Name and position of other key persons of the project	
Interviewers involved	Enumerators: 12
Other staff involved	

Sampling frame

Characteristic of sample frame used	
Source	Amman Chamber of Industry, the Amman Chamber of Commerce, the Irbid Chamber of Industry, the Irbid Chamber of Commerce, the Zarqa Chamber of Industry, the Zarqa Chamber of Commerce, the Aqaba Chamber of Industry, the Aqaba Chamber of Commerce, the Balqa Chamber of Industry, the Balqa Chamber of Commerce, and Bureau van Dijk's Orbis database (for the validation of large-sized firms)
Year of publication	
Comments on the quality of the sample frame	Limitations in the frame, no comprehensive source of all private sector businesses. Not all values available for all companies (such as employee numbers).
Year and organisation that conducted the last economic census	2011, Department of Statistics

Sample

Comments/problems on sectors and regions selected in the sample	
Comments on the response rate	
Comments on the sample design	

Fieldwork

Date of fieldwork	May 2013 – January 2014, with call-backs and data finalisation lasting until April 2014
Country	Jordan
Number of completed interviews	600
Problems found during fieldwork	Problems with questionnaire length, limited cooperation amongst business owners and managers, not everyone was willing to answer all questions (especially related to their finances), putting a lot of strain on enumerators to get as much information as possible. Concern over confidentiality of information.
Other observations	Many respondents required a lot of convincing before agreeing to the survey

Questionnaires

Problems for the understanding of questions (write question number)	
Problems found in the navigability of questionnaires (for example, skip patterns)	No problems with navigating questionnaire because of the tablets.
Comments on questionnaire length	Respondents found the questionnaire to be very long.

Suggestions or other comments on the questionnaires	Many open-ended questions required callbacks.

Quality control

Fieldwork monitoring	
Data checking procedures	Callbacks were made at multiple stages of the fieldwork process. Dajani Consulting conducted ongoing callbacks at the direction of Gallup Europe throughout the fieldwork period.
Number of respondents selected for back-checking	214 (35.6%)
Selection procedures	
Who carried out back-checks?	
Mode of contact	
Number of completed interviews back-checked	
Number of non-responses back-checked	
Results of alternative method of contacting non-respondents	
Description of what was covered in the back-checks	A standard callback questionnaire of key variables (d2, n3, l1, l2, n2, n7, l6, and l8) was used to confirm the accuracy of recorded data. Callbacks were also made to correct invalid responses, to get more detail on the string variables and to complete questions the respondent originally declined to answer.
Number of completed interviews that were rejected and why	27 cases were removed due to critically low item-level response or ineligible industry.

Database

Data entry program chosen	Raw data was directly uploaded from the tablets and computer CATI system, eliminating the need for data entry.
Comments on the data entry program	All verifications and consistency checks (for tablet-based interviews) were applied on PC-tablet applications. An error message pops up when entering a wrong value and some error messages show up in red for sensitive questions.
Comments on the data cleaning	Cleaning was done to correct variable names and value labels, as well as to insert the 'control variables' (a1-a6) that did not come with the data. Data from call backs was merged into the dataset, as were translated string variables.

Country situation

General aspects of economic, political or social situation of the country that could affect the results of the survey	
Relevant country events that occurred during fieldwork	
Other aspects	

A.5   Lebanon

A.5.1. Sampling structure and implementation

The sampling frame for Lebanon was collated from multiple available sources, including chambers of commerce, by InfoPro (local consultant). For some companies, information about industry and number of employees was unavailable.

The quality of the frame was assessed at the onset of the project. The frame proved to be useful though it showed positive rates of non-eligibility, repetition, non-existent units, etc. These problems are typical of establishment surveys, but given the impact these inaccuracies may have on the results, adjustments were needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of contacts to complete the survey was 20.8% (454 out of 2187 establishments).

Regional stratification was defined in 6 regions. These regions are Beirut, Bekaa Valley, Mount Lebanon, Nabatieh, North Lebanon and South Lebanon.

Regions (official)	Grouping used for stratification purposes in MENA ES
Beirut	Beirut
Bekaa Valley	Bekaa Valley
Mount Lebanon	Mount Lebanon
Nabatieh	Nabatieh
North Lebanon	North Lebanon
South Lebanon	South Lebanon

Fresh sampling frame

Region	Employees	Food	Other Manufacturing	Retail/ Wholesale	Other Services	No info.	Grand Total
Beirut	Small	56	158	535	385	0	1134
	Medium	47	74	210	219	0	550
	Large	9	20	38	45	0	112
	No info.	50	74	290	261	0	675
	Total	**162**	**326**	**1073**	**910**	**0**	**2471**
Bekaa Valley	Small	25	18	47	21	0	111
	Medium	20	14	13	6	0	53
	Large	5	6	0	0	0	11
	No info.	8	9	42	8	500	567
	Total	**58**	**47**	**102**	**35**	**500**	**742**
Mount Lebanon	Small	175	424	1009	497	0	2105
	Medium	148	299	391	233	0	1071
	Large	37	63	55	70	0	225
	No info.	132	190	593	349	5	1269
	Total	**492**	**976**	**2048**	**1149**	**5**	**4670**
Nabatieh	Small	3	1	1	4	0	9
	Medium	2	2	0	0	0	4
	Large	0	0	0	0	0	0
	No info.	54	106	1101	8	98	1367
	Total	**59**	**109**	**1102**	**12**	**98**	**1380**
North Lebanon	Small	18	23	50	46	0	137
	Medium	11	15	22	18	0	66
	Large	5	0	0	0	0	5
	No info.	10	13	51	21	0	95
	Total	**44**	**51**	**123**	**85**	**0**	**303**
South Lebanon	Small	10	14	39	18	0	81
	Medium	5	7	11	7	0	30
	Large	0	5	4	3	0	12
	No info.	119	254	1972	34	222	2601
	Total	**134**	**280**	**2026**	**62**	**222**	**2724**
Grand Total		**949**	**1789**	**6474**	**2253**	**825**	**12290**

Source: Collated from multiple sources by InfoPro.

Universe estimates

Region	Employees	Food	Other Manufacturing	Retail	Other Services	Grand Total
Beirut	5-19	85	161	923	530	
	20-99	17	32	184	106	
	100+	3	5	30	17	
	Total					**2093**
Bekaa Valley	5-19	38	72	397	161	
	20-99	6	12	66	27	
	100+	1	1	6	2	
	Total					**789**
Mount Lebanon	5-19	187	498	1733	887	
	20-99	34	91	318	163	
	100+	5	13	45	23	
	Total					**3998**
Nabatieh	5-19	16	25	110	54	
	20-99	2	4	17	8	
	100+	0	0	2	1	
	Total					**240**
North Lebanon	5-19	49	107	487	244	
	20-99	7	16	73	37	
	100+	1	2	8	4	
	Total					**1035**
South Lebanon	5-19	33	55	262	120	
	20-99	4	7	31	14	
	100+	1	1	6	3	
	Total					**538**
Grand Total						**8692**

Source: 2004 Establishment Census, Statistical Office.

Original sample design

Region	Employees	Food	Other Manufacturing	Retail/ Wholesale	Other Services	No info.	Grand Total
Beirut	Small	7	8	8	9		32
	Medium	8	9	10	10		37
	Large	6	12	14	13		45
	No info.	4	4	4	4		16
	Total	**25**	**33**	**36**	**36**		**130**
Bekaa Valley	Small	4	4	4	5		17
	Medium	4	5	6	6		21
	Large	5	6				11
	No info.	4	4	4	4	4	20
	Total	**17**	**19**	**14**	**15**	**4**	**69**
Mount Lebanon	Small	6	7	8	8		29
	Medium	7	9	10	9		35
	Large	10	12	13	12		47
	No info.	4	4	4	4	3	19
	Total	**27**	**32**	**35**	**33**	**3**	**130**
Nabatieh	Small	3	1	1	4		9
	Medium	2	2				4
	Large						
	No info.	8	10	10	8	11	47
	Total	**13**	**13**	**11**	**12**	**11**	**60**
North Lebanon	Small	4	4	4	5		17
	Medium	5	5	7	6		23
	Large	5					5
	No info.	4	4	4	4		16
	Total	**18**	**13**	**15**	**15**		**61**
South Lebanon	Small	10	12	12	12		46
	Medium	5	7	11	7		30
	Large		5	4	3		12
	No info.	5	6	7	7	7	32
	Total	**20**	**30**	**34**	**29**	**7**	**120**
Grand Total		**120**	**140**	**145**	**140**	**25**	**570**

Achieved sample (based on a2, a4a and a6a)

Region	Employees	Food	Other Manufacturing	Retail/ Wholesale	Other Services	No info.	Grand Total
Beirut	Small	10	9	7	11	0	37
	Medium	11	13	14	8	0	46
	Large	1	5	5	8	0	19
	No info.	7	4	1	4	0	16
	Total	**29**	**31**	**27**	**31**	**0**	**118**
Bekaa Valley	Small	9	9	9	10	0	37
	Medium	7	10	5	3	0	25
	Large	1	3	0	0	0	4
	No info.	3	5	4	1	5	18
	Total	**20**	**27**	**18**	**14**	**5**	**84**
Mount Lebanon	Small	8	9	7	13	0	37
	Medium	11	10	10	9	0	40
	Large	11	15	8	12	0	46
	No info.	3	6	1	4	2	16
	Total	**33**	**40**	**26**	**38**	**2**	**139**
Nabatieh	Small	1	0	0	3	0	4
	Medium	0	2	0	0	0	2
	Large	0	0	0	0	0	0
	No info.	7	11	8	2	9	37
	Total	**8**	**13**	**8**	**5**	**9**	**43**
North Lebanon	Small	7	8	8	9	0	32
	Medium	5	8	8	6	0	27
	Large	4	0	0	0	0	4
	No info.	2	5	5	3	0	15
	Total	**18**	**21**	**21**	**18**	**0**	**78**
South Lebanon	Small	6	8	13	7	0	34
	Medium	4	3	7	1	0	15
	Large	0	3	3	2	0	8
	No info.	9	6	11	9	7	42
	Total	**19**	**20**	**34**	**19**	**7**	**99**
Grand Total		**127**	**152**	**134**	**125**	**23**	**561**

A.1.2. Status codes

	TOTAL
Complete interviews **(Total)**	562
Complete interviews (not eligible for innovation)	174
Complete interviews (with innovation)	383
Complete interviews (eligible, but refused to answer innovation)	5
Incomplete interviews	2
Elegible in process	40
Refusals	145
Quota is met	70
Out of target	446
Impossible to contact	463
Ineligible - coop.	8
Refusal to the Screener	451
Total	2187

		TOTAL
Eligible	1.Elegible establishment (Correct name and address)	761
	2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	1
	3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	32
	4. Eligible establishment (Wrong address - the firm/establishmen has changed address and the address could be found)	25
	16. Panel firm - now less than five employees	0
Ineligible	5. The establishment has less than 5 permanent full time employees	296
	6. The firm discontinued businesses	57
	7. Not a business: private household	58
	8. Ineligible activity: education, agriculture, finances, governments…	35
Unobtainable	91. No reply *(after having called in different days of the week and in different business hours)*	334
	92. Line out of order	19
	93. No tone	0
	94. Phone number does not exist	0
	10. Answering machine	0
	11. Fax line - data line	0
	12. Wrong address/ moved away and could not get the new references	110
	13. Refuses to answer the screener	451
	14. In process *(the establishment is being called/ is being contacted - previous to ask the screener)*	0
	151. Out of target - outside the covered regions, firm moved abroad	0
	152. Out of target - firm moved abroad	7
	153. Impossible to find	1
	154. Establishment is HQ without production or sales in the location	0
	156. Duplicate in the sample	0
	Total	2187

A.5.3. Survey and item non-response

The number of completed interviews per contacted establishment was 0.26. This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The number of rejections per contact was 0.27.

A.5.4. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local agency	Name: InfoPro Country: Lebanon Membership of international organisation: Activities since:
Name of Project Manager	
Name and position of other key persons of the project	
Enumerators involved	Enumerators: 8
Other staff involved	

Sampling frame

Characteristic of sample frame used	Variables: Name of establishment, address, activity, telephone number, number of employees
Source	Collated from multiple available sources, including chambers of commerce, by InfoPro (local consultant).
Year of publication	
Comments on the quality of the sample frame	For some companies, information about industry and number of employees was unavailable.
Year and organisation that conducted the last economic census	2004 Central Administration of Statistics
Other sources for companies statistics	None

Sample

Comments/problems on sectors and regions selected in the sample	Not all companies had sector or employee size information.
Comments on the response rate	
Comments on the sample design	

Fieldwork

Date of fieldwork	April 2013 – April 2014
Country	Lebanon
Number of completed interviews	561
Problems found during fieldwork	Some enterprises refused to answer certain questions, requiring callbacks.
Other observations	

Questionnaires

Problems for the understanding of questions (write question number)	
Problems found in the navigability of questionnaires (for example, skip patterns)	N/A, used CAPI
Comments on questionnaire length	
Suggestions or other comments on the questionnaires	

Quality control

Fieldwork monitoring	
Data checking procedures	All verifications and consistency checks (for tablet-based interviews) were applied on PC-tablet applications. An error message pops up when entering

	a wrong value and some error messages show up in red for sensitive questions. InfoPro conducted ongoing callbacks at the direction of Gallup throughout the fieldwork period. Callbacks were also made to correct invalid responses, to get more detail on the string variables and to complete questions the respondent originally declined to answer.
Number of respondents selected for back-checking	
Selection procedures	
Who carried out back-checks?	
Mode of contact	
Number of completed interviews back-checked	
Number of non-responses back-checked	
Results of alternative method of contacting non-respondents	
Description of what was covered in the back-checks	
Number of completed interviews that were rejected and why	

Database

Data entry program chosen	CAPI
Comments on the data entry program	
Comments on the data cleaning	Raw data was directly uploaded from the tablets and computer CATI system, eliminating the need for data entry. Cleaning was done to correct variable names and value labels, as well as to insert the 'control variables' (a1-a6) that did not come with the data. Data from call backs was merged into the dataset, as were translated string variables. For 25 of the interviews, the innovation section of the interview was conducted separately; this data had to be merged in as well.

Country situation

General aspects of economic, political or social situation of the country that could affect the results of the survey	
Relevant country events that occurred during fieldwork	
Other aspects	

A.6   Morocco

A.6.1. Sampling structure and implementation

Sample frames were obtained from several sources. The main source was from a private listing from the Kompass database, which was supplemented by sector-specific lists complied by the local contractors due to limited coverage in Food and Garments sectors. To retain probabilistic sampling, cells in which these supplements were used were drawn only after supplements were obtained.

The quality of the frame was assessed at the onset of the project. The frame proved to be useful though it showed positive rates of non-eligibility, repetition, non-existent units, etc. These problems are typical of establishment surveys, but given the impact these inaccuracies

may have on the results, adjustments were needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of contacts to complete the survey was 5.6% (135 out of 2403 establishments).

Regional stratification was defined in five regions. These regions are Grand Casablanca, Rabat-Sale-Zemmour-Zaer, North, Central and South. Table below shows the grouping of official administrative regions into these five regions. Due to restrictions in the sampling frame, disaggregated sub-regions (i.e., official regions) were used for drawing the sample.

Regions (administrative regions)	Grouping used for stratification purposes in MENA ES
Grand Casablanca	Grand Casablanca
Rabat-Salé-Zemmour-Zaer	Rabat-Salé-Zemmour-Zaer
Gharb-Chrarda-Béni Hssen	North
Taza-Al Hoceima-Taounate	
Tangier-Tétouan	
Fès-Boulemane	Central
Chaouia-Ouardigha	
Doukkala-Abda	
Tadla-Azilal	
Meknès-Tafilalet	
Souss-Massa-Drâa	South
Marrakech-Tensift-El Haouz	
Guelmim-Es Semara	Not covered
Laâyoune-Boujdour-Sakia El Hamra	
Oriental	
Oued Ed-Dahab-Lagouira	

Sampling frame

Region	Employees	Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Grand Casablanca	5-19	80	100	1951	53	1763	3947
	20-99	79	143	1178	26	926	2352
	100+	53	136	404	15	345	953
	Total	**212**	**379**	**3533**	**94**	**3034**	**7252**
Rabat-Salé-Zemmour-Zaer	5-19	11	4	196	14	224	449
	20-99	10	7	118	6	144	285
	100+	4	23	53	4	62	146
	Total	**25**	**34**	**367**	**24**	**430**	**880**
North	5-19	10	4	101	2	132	249
	20-99	16	12	107	0	103	238
	100+	15	38	37	2	31	123
	Total	**41**	**54**	**245**	**4**	**266**	**610**
Central	5-19	26	5	139	3	167	340
	20-99	34	8	127	3	126	298
	100+	20	37	55	0	44	156
	Total	**80**	**50**	**321**	**6**	**337**	**794**
South	5-19	22	8	189	8	243	470
	20-99	30	9	951	3	184	321
	100+	25	6	21	0	90	142
	Total	**77**	**23**	**305**	**11**	**517**	**933**
Grand Total		**435**	**540**	**4771**	**139**	**4584**	**10469**

Source: Several sources compiled by the local contractors.

Universe

Region	Employees	Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Grand Casablanca	5-19	460	450	1951	802	3121	6784
	20-99	185	269	1178	95	926	2653
	100+	57	217	404	15	345	1038
	Total	**702**	**936**	**3533**	**912**	**4392**	**10475**
Rabat-Salé-Zemmour-Zaer	5-19	236	231	803	454	1799	3523
	20-99	37	53	142	18	235	485
	100+	11	44	53	4	62	174
	Total	**284**	**328**	**998**	**476**	**2096**	**4182**
North	5-19	434	424	1475	851	2903	6087
	20-99	56	80	216	10	189	551
	100+	18	69	71	3	31	192
	Total	**508**	**573**	**1762**	**864**	**3123**	**6830**
Central	5-19	758	740	2572	1334	4263	9667
	20-99	82	120	318	24	325	869
	100+	23	79	84	2	50	238
	Total	**863**	**939**	**2974**	**1360**	**4638**	**10774**
South	5-19	492	480	1670	917	2710	6269
	20-99	40	48	131	26	253	498
	100+	25	23	23	3	90	164
	Total	**557**	**551**	**1824**	**946**	**3053**	**9631**
Grand Total		**2914**	**3327**	**11091**	**4558**	**17302**	**39192**

Source: Kompass 2013, HCP – Recensement Economique, 2001-2002.

Original sample design

Region	Employees	Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Grand Casablanca	5-19	7	7	11	7	20	52
	20-99	7	7	9	7	8	38
	100+	6	5	6	8	5	30
	Total	**20**	**19**	**26**	**22**	**33**	**120**
Rabat-Salé-Zemmour-Zaer	5-19	7	7	10	7	12	43
	20-99	8	7	8	14	8	45
	100+	6	9	8	4	5	32
	Total	**21**	**23**	**26**	**25**	**25**	**120**
North	5-19	6	6	9	6	12	39
	20-99	11	9	4	7	3	34
	100+	12	19	8	3	5	47
	Total	**29**	**34**	**21**	**16**	**20**	**120**
Central	5-19	10	10	13	11	14	58
	20-99	5	5	5	19	5	39
	100+	6	5	5	2	5	23
	Total	**21**	**20**	**23**	**32**	**24**	**120**
South	5-19	4	4	10	4	11	33
	20-99	10	8	5	18	3	44
	100+	15	12	9	3	4	43
	Total	**29**	**24**	**24**	**25**	**18**	**120**
Grand Total		**120**	**120**	**120**	**120**	**120**	**600**

Achieved sample (based on a2, a4a and a6a)

Region	Employees	Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Grand Casablanca	5-19	11	10	12	6	18	57
	20-99	4	7	5	9	7	32
	100+	3	4	5	6	4	22
	Total	**18**	**21**	**26**	**17**	**29**	**111**
Rabat-Salé-Zemmour-Zaer	5-19	3	1	8	4	12	28
	20-99	1	2	9	14	8	34
	100+	0	2	5	2	4	13
	Total	**4**	**5**	**22**	**20**	**24**	**75**
North	5-19	1	1	6	3	8	19
	20-99	6	1	3	3	2	15
	100+	1	11	4	3	3	22
	Total	**8**	**13**	**13**	**9**	**13**	**56**
Central	5-19	3	2	14	8	8	35
	20-99	2	3	5	10	6	26
	100+	3	3	5	2	2	15
	Total	**8**	**8**	**24**	**20**	**16**	**76**
South	5-19	3	4	9	3	14	33
	20-99	4	4	7	20	1	36
	100+	5	2	4	4	5	20
	Total	**12**	**10**	**20**	**27**	**20**	**89**
Grand Total		**50**	**57**	**105**	**93**	**102**	**407**

A.6.2. Status codes

	TOTAL
Complete interviews **(Total)**	407
Complete interviews (not eligible for innovation)	137
Complete interviews (with innovation)	257
Complete interviews (eligible, but refused to answer innovation)	13
Incomplete interviews	37
Elegible in process	259
Refusals	116
Quota is met	0
Out of target	89
Impossible to contact	276
Ineligible - coop.	42
Refusal to the Screener	1173
Total	2399

		TOTAL
Eligible	1.Elegible establishment (Correct name and address)	707
	2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	5
	3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	39
	4. Eligible establishment (Wrong address - the firm/establishmen has changed address and the address could be found)	68
	16. Panel firm - now less than five employees	0
Ineligible	5. The establishment has less than 5 permanent full time employees	20
	6. The firm discontinued businesses	12
	7. Not a business: private household	38
	8. Ineligible activity: education, agriculture, finances, governments…	19
Undetermina ble	91. No reply *(after having called in different days of the week and in different business hours)*	120

92. Line out of order	0	
93. No tone	0	
94. Phone number does not exist	57	
10. Answering machine	13	
11. Fax line - data line	10	
12. Wrong address/ moved away and could not get the new references	76	
13. Refuses to answer the screener	1173	
14. In process *(the establishment is being called/ is being contacted - previous to ask the screener)*	0	
151. Out of target - outside the covered regions, firm moved abroad	14	
152. Out of target - firm moved abroad	0	
153. Impossible to find	4	
154. Establishment is HQ without production or sales in the location	1	
156. Duplicate in the sample	23	
Total	2375	

A.6.3. Survey and item non-response

The number of completed interviews per contacted establishment was 0.17. This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The number of rejections per contact was 0.54.

A.6.4. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local agency 1	Name: DSM Country: Morocco Membership of international organisation: Activities since:
Name of Project Manager	
Name and position of other key persons of the project	
Enumerators involved	
Other staff involved	

Local agency 2	Name: LMS-CSA Country: Morocco Membership of international organisation: Activities since:
Name of Project Manager	
Name and position of other key persons of the project	
Enumerators involved	
Other staff involved	

Sampling frame

Characteristic of sample frame used	Variables: Name of establishment, address, activity, legal status, date of establish and registration, number of employees
Source	Kompass and sector-specific lists complied by the local contractors due to limited coverage in Food and Garments sectors.
Year of publication	
Comments on the quality of the sample frame	

Year and organisation that conducted the last economic census	2001-2002 HCP Recensement Economique
Other sources for companies statistics	

Sample

Comments/problems on sectors and regions selected in the sample	
Comments on the response rate	
Comments on the sample design	

Fieldwork

Date of fieldwork	May 2013 – August 2014 (DSM); September 2014 - December 2014 (LMS-CSA), with additional call-backs and data finalisation lasting until March 2015.
Country	Morocco
Number of completed interviews	411 (348 DSM, 63 LMS-CSA)
Problems found during fieldwork	
Other observations	

Questionnaires

Problems for the understanding of questions (write question number)	
Problems found in the navigability of questionnaires (for example, skip patterns)	None.
Comments on questionnaire length	
Suggestions or other comments on the questionnaires	

Quality control

Fieldwork monitoring	
Data checking procedures	All verifications and consistency checks (for tablet-based interviews) were applied on PC-tablet applications. An error message pops up when entering a wrong value and some error messages show up in red for sensitive questions. DMS and LMS-CSA conducted ongoing callbacks at the direction of Gallup throughout the fieldwork period. Callbacks were also made to correct invalid responses, to get more detail on the string variables and to complete questions the respondent originally declined to answer.
Number of respondents selected for back-checking	
Selection procedures	
Who carried out back-checks?	
Mode of contact	
Number of completed interviews back-checked	
Number of non-responses back-checked	
Results of alternative method of contacting non-respondents	
Description of what was covered in the back-checks	
Number of completed interviews that were rejected and why	

Database

Data entry program chosen	Raw data from DSM was directly uploaded from the tablets and computer CATI system, eliminating the need for data entry. LMS-CSA entered the data by hand.
Comments on the data entry program	
Comments on the data cleaning	

Country situation

General aspects of economic, political or social situation of the country that could affect the results of the survey	
Relevant country events that occurred during fieldwork	
Other aspects	

A.7 Tunisia

A.7.1. Sampling structure and implementation

Two sampling frames were used. The first was the Guide Economique de la Tunisie, 2013, which did not include firm size information based on the number of employees and was used for small and medium strata. The second was Bureau van Dijk's Orbis database, which was considered to have a full representation of large firms and was thus used for large stratum. Duplicate entries were removed, with preference for the sampling frame with available size information.

The quality of the frame was assessed at the onset of the project. The frame proved to be useful though it showed positive rates of non-eligibility, repetition, non-existent units, etc. These problems are typical of establishment surveys, but given the impact these inaccuracies may have on the results, adjustments were needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of contacts to complete the survey was 8.4% (574 out of 6807 establishments).

Regional stratification was defined in 5 regions. These regions are Tunis, Sfax, Northeast, South Coast/West and Interior. The table below shows how the governorates were grouped into these five regions.

Governorate	Official statistical region	Grouping used for stratification purposes in MENA ES
Tunis	North East	Tunis
Ariana		Northeast
Manouba		
Ben Arous		
Nabeul		
Bizerte		
Sfax	Centre East	Sfax
Sousse		South Coast/West
Monastir		
Mahdia		
Gabès	South East	
Medenine		
Tataouine		Interior
Gafsa	South West	
Kebili		
Tozeur		
Kairouan	Centre West	
Kasserine		
Sidi Bouzid	North West	
Béja		
Jendouba		
Le Kef		
Siliana		
Zaghouan	North East	

Sampling frame

Guide Economique 2013 (small and medium, no size category distinction)

Region	Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tunis	146	127	1139	550	1472	3434
Sfax	49	103	422	146	293	1013
Northeast	226	307	1363	346	1145	3387
South Coast/West	76	247	576	188	765	1852
Interior	39	21	123	39	232	454
Grand Total	**536**	**805**	**3623**	**1269**	**3907**	**10140**

Source: Guide Economique 2013.

Bureau van Dijk's Orbis (large)

Region	Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tunis	18	5	34	3	46	106
Sfax	4	3	24		12	43
Northeast	16	27	132	3	44	222
South Coast/West	9	33	38		9	89
Interior	3	8	24		4	39
Grand Total	**50**	**76**	**252**	**6**	**115**	**499**

Source: Bureau van Dijk's Orbis, 2013.

Combined sampling frame

Region	Employees	Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tunis	SME (5-99)	146	127	1139	550	1472	3434
	Large (100+)	18	5	34	3	46	106
	Total	**164**	**132**	**1173**	**553**	**1518**	**3540**
Sfax	SME (5-99)	49	103	422	146	293	1013
	Large (100+)	4	3	24	0	12	43
	Total	**53**	**106**	**446**	**146**	**305**	**1056**
Northeast	SME (5-99)	226	307	1363	346	1145	3387
	Large (100+)	16	27	132	3	44	222
	Total	**242**	**334**	**1495**	**349**	**1189**	**3609**
South Coast/West	SME (5-99)	76	247	576	188	765	1852
	Large (100+)	9	33	38	0	9	89
	Total	**85**	**280**	**614**	**188**	**774**	**1941**
Interior	SME (5-99)	39	21	123	39	232	454
	Large (100+)	3	8	24	0	4	39
	Total	**42**	**29**	**147**	**39**	**236**	**493**
Grand Total		**586**	**881**	**3875**	**1275**	**4022**	**10639**

Universe

Region	Employees	Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tunis	5-19	224	71	424	394	1553	2666
	20-99	53	54	218	78	467	870
	+100	30	23	72	13	149	287
	Total	**307**	**148**	**714**	**485**	**2169**	**3823**
Sfax	5-19	234	99	613	162	711	1819
	20-99	49	89	235	27	158	558
	+100	14	27	42	2	30	115
	Total	**297**	**215**	**890**	**191**	**899**	**2492**
Northeast	5-19	500	147	926	281	1686	3540
	20-99	81	251	600	22	438	1392
	+100	37	153	267	8	128	593
	Total	**618**	**551**	**1793**	**311**	**2252**	**5525**
South Coast/West	5-19	360	237	557	208	1260	2622
	20-99	37	335	332	7	258	969
	+100	15	172	129	3	82	401
	Total	**412**	**744**	**1018**	**218**	**1600**	**3992**
Interior	5-19	319	34	136	75	659	1223
	20-99	22	66	117	12	94	311
	+100	9	23	60	2	12	106
	Total	**350**	**123**	**313**	**89**	**765**	**1640**
Grand Total		**1984**	**1781**	**4728**	**1294**	**7685**	**17472**

Source : Institut National de la Statistique Tunisie.

Note: Adjustments using iterative proportional fitting were used in certain cells. Further adjustments were made in some cases to conform with the available sample frame.

Original sample design

Region	Employees	Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tunis	Small	5	5	6	15	20	51
	Medium	7	5	7	13	5	37
	Large	9	6	5	7	5	32
	Total	**21**	**16**	**18**	**35**	**30**	**120**
Sfax	Small	8	5	5	20	5	43
	Medium	10	9	11	12	5	47
	Large	7	9	7	1	6	30
	Total	**25**	**23**	**23**	**33**	**16**	**120**
Northeast	Small	9	5	18	6	20	58
	Medium	10	5	5	11	5	36
	Large	5	5	7	4	5	26
	Total	**24**	**15**	**30**	**21**	**30**	**120**
South Coast/West	Small	6	5	9	6	19	45
	Medium	5	12	9	4	5	35
	Large	8	20	5	2	5	40
	Total	**19**	**37**	**23**	**12**	**29**	**120**
Interior	Small	15	5	5	12	6	43
	Medium	11	13	10	6	5	45
	Large	5	11	11	1	4	32
	Total	**31**	**29**	**26**	**19**	**15**	**120**
Grand Total		**120**	**120**	**120**	**120**	**120**	**600**

Achieved sample (based on a2, a4a and a6b)

Region	Employees	Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tunis	5-19	0	5	7	15	19	46
	20-99	15	4	7	17	8	51
	+100	6	2	8	7	5	28
	Total	**21**	**11**	**22**	**39**	**32**	**125**
Sfax	5-19	3	2	7	17	13	42
	20-99	12	15	12	13	12	64
	+100	3	3	7	2	5	20
	Total	**18**	**20**	**26**	**32**	**30**	**126**
Northeast	5-19	9	5	20	7	22	63
	20-99	18	10	7	7	6	48
	+100	12	12	7	2	9	42
	Total	**39**	**27**	**34**	**16**	**37**	**153**
South Coast/West	5-19	3	5	9	6	26	49
	20-99	11	25	9	6	11	62
	+100	5	16	6	2	5	34
	Total	**19**	**46**	**24**	**14**	**42**	**145**
Interior	5-19	1	0	3	3	6	13
	20-99	0	0	10	3	5	18
	+100	2	1	4	1	4	12
	Total	**3**	**1**	**17**	**7**	**15**	**43**
Grand Total		**100**	**105**	**123**	**108**	**156**	**592**

A.7.3. Status codes

	TOTAL
Complete interviews **(Total)**	594
Complete interviews (not eligible for innovation)	161
Complete interviews (with innovation)	433
Complete interviews (eligible, but refused to answer innovation)	0
Incomplete interviews	30
Elegible in process	83
Refusals	259
Quota is met	1816
Out of target	574
Impossible to contact	1991
Ineligible - coop.	0
Refusal to the Screener	1460
Total	6807

		TOTAL
Eligible	1.Elegible establishment (Correct name and address)	2522
	2. Elegible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	24
	3. Elegible establishment (Different name but same address - the firm/establishment changed its name)	107
	4. Elegible establishment (Wrong address - the firm/establishmen has changed address and the address could be found)	128
	16. Panel firm - now less than five employees	0
Ineligible	5. The establishment has less than 5 permanent full time employees	262
	6. The firm discontinued businesses	117
	7. Not a business: private household	162
	8. Ineligible activity: education, agriculture, finances, governments…	33
Unobtainable	91. No reply *(after having called in different days of the week and in different business hours)*	1211
	92. Line out of order	352
	93. No tone	14
	94. Phone number does not exist	0
	10. Answering machine	0
	11. Fax line - data line	18
	12. Wrong address/ moved away and could not get the new references	396
	13. Refuses to answer the screener	1460
	14. In process *(the establishment is being called/ is being contacted - previous to ask the screener)*	100
	151. Out of target - outside the covered regions, firm moved abroad	0
	152. Out of target - firm moved abroad	0
	153. Impossible to find	0
	154. Establishment is HQ without production or sales in the location	0
	156. Duplicate in the sample	0
	Total	6906

A.7.4. Survey and item non-response

The number of completed interviews per contacted establishment was 0.09. This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The number of rejections per contact was 0.25.

A.7.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local agency	Name: EMRHOD Country: Tunisia Membership of international organisation: Activities since:
Name of Project Manager	
Name and position of other key persons of the project	
Enumerators involved	Enumerators:
Other staff involved	

Sampling frame

Characteristic of sample frame used	Variables: Name of establishment, address, activity, legal status, date of establish and registration, number of employees
Source	Guide Economique de la Tunisie (Institue for National Statistics) and Bureau van Dijk's Orbis database
Year of publication	2013
Comments on the quality of the sample frame	Guide Economique de la Tunisie did not include firm size information based on the number of employees and was used for small and medium strata. Bureau van Dijk's Orbis database was considered to have a full representation of large firms and was used for large stratum. Duplicate entries were removed, with preference for the sampling frame with available size information.
Year and organisation that conducted the last economic census	2011, National Instite of Statistics (INS)

Sample

Comments/problems on sectors and regions selected in the sample	
Comments on the response rate	
Comments on the sample design	

Fieldwork

Date of fieldwork	September 2013 – November 2014, with additional call-backs and data finalisation lasting until March 2015.
Country	Tunisia
Number of completed interviews	594
Problems found during fieldwork	
Other observations	

Questionnaires

Problems for the understanding of questions (write question number)	
Problems found in the navigability of questionnaires (for example, skip patterns)	None.
Comments on questionnaire length	
Suggestions or other comments on the questionnaires	

Quality control

Fieldwork monitoring	

Data checking procedures	All verifications and consistency checks (for tablet-based interviews) were applied on PC-tablet applications. An error message pops up when entering a wrong value and some error messages show up in red for sensitive questions. EMRHOD conducted ongoing callbacks at the direction of Gallup throughout the fieldwork period. Callbacks were also made to correct invalid responses, to get more detail on the string variables and to complete questions the respondent originally declined to answer.
Number of respondents selected for back-checking	
Selection procedures	
Who carried out back-checks?	
Mode of contact	
Number of completed interviews back-checked	
Number of non-responses back-checked	
Results of alternative method of contacting non-respondents	
Description of what was covered in the back-checks	
Number of completed interviews that were rejected and why	

Database

Data entry program chosen	CAPI
Comments on the data entry program	Raw data was directly uploaded from the tablets and computer CATI system, eliminating the need for data entry.
Comments on the data cleaning	Cleaning was done to correct variable names and value labels, as well as to insert the 'control variables' (a1-a6) that did not come with the data. Data from call backs was merged into the dataset, as were translated string variables.

Country situation

General aspects of economic, political or social situation of the country that could affect the results of the survey	
Relevant country events that occurred during fieldwork	
Other aspects	

A.8   West Bank and Gaza

A.8.1. Sampling structure and implementation

The first sampling frame was supplied by the World Bank and consisted of enterprises interviewed in the World Bank's 2006 Enterprise Survey, with available contacts matched and verified against the Palestinian Central Bureau of Statistics' (PCBS) establishment census. The World Bank required that attempts should be made to re-interview establishments responding to the 2006 ES survey where they were within the selected geographical regions and met eligibility criteria. That sample is referred to as the Panel. The second frame for West Bank and Gaza was the PCBS Establishment Census 2012.

The quality of the frame was assessed at the onset of the project. The frame proved to be useful though it showed positive rates of non-eligibility, repetition, non-existent units, etc. These problems are typical of establishment surveys, but given the impact these inaccuracies may have on the results, adjustments

were needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of contacts to complete the survey was 3.9% (40 out of 572 establishments).

Regional stratification was defined in two regions. These regions are West Bank; and Gaza.

Sampling frame
Fresh

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
West Bank	5-19	2242	1109	1259	4180
	20-99	200	34	97	308
	100+	21	2	9	29
	Total	**2463**	**1145**	**1365**	**4973**
Gaza	5-19	531	518	565	1614
	20-99	29	3	33	65
	100+	3	0	1	4
	Total	**563**	**521**	**599**	**1683**
Grand Total		**3026**	**1666**	**1964**	**6656**

Source: PCBS Establishment Census 2012.

Panel

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
West Bank	5-19	34	0	11	45
	20-99	12	0	8	20
	100+	9	0	1	10
	Total	**55**	**0**	**20**	**75**
Gaza	5-19	5	0	4	9
	20-99	22	0	3	25
	100+	7	0	0	7
	Total	**34**	**0**	**7**	**41**
Grand Total		**89**	**0**	**27**	**116**

Source: WB 2006 Enterprise Survey.
Note: Available contacts were matched and verified against PCBS Establishment Census. Full numbers can be found below.

Universe
Fresh

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
West Bank	5-19	2242	1109	1259	4180
	20-99	200	34	97	308
	100+	21	2	9	29
	Total	**2463**	**1145**	**1365**	**4973**
Gaza	5-19	531	518	565	1614
	20-99	29	3	33	65
	100+	3	0	1	4
	Total	**563**	**521**	**599**	**1683**
Grand Total		**3026**	**1666**	**1964**	**6656**

Source: PCBS Establishment Census 2012.

Panel

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
West Bank	5-19	104	0	25	129
	20-99	67	0	14	81
	100+	14	0	4	18
	Total	**184**	**0**	**43**	**228**
Gaza	5-19	97	0	26	123
	20-99	37	0	7	44
	100+	6	0	0	6
	Total	**140**	**0**	**33**	**173**
Grand Total		**325**	**0**	**76**	**401**

Source: WB 2006 Enterprise Survey.

Original sample design

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
West Bank	5-19	36	54	40	130
	20-99	19	34	29	82
	100+	17	2	9	28
	Total	**72**	**90**	**78**	**240**
Gaza	5-19	10	27	8	45
	20-99	32	3	33	68
	100+	6	0	1	7
	Total	**48**	**30**	**42**	**120**
Grand Total		**120**	**120**	**120**	**360**

Achieved sample (based on a2, a4a and a6a)

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
West Bank	5-19	54	76	60	190
	20-99	16	19	43	78
	100+	16	6	5	27
	Total	**86**	**101**	**108**	**295**
Gaza	5-19	15	32	23	70
	20-99	31	6	24	61
	100+	3	0	5	8
	Total	**49**	**38**	**52**	**139**
Grand Total		**135**	**139**	**160**	**434**

A.8.2. Status codes

	TOTAL
Complete interviews **(Total)**	435
Complete interviews (not eligible for innovation)	250
Complete interviews (with innovation)	177
Complete interviews (eligible, but refused to answer innovation)	8
Incomplete interviews	8
Elegible in process	0
Refusals	38
Quota is met	1
Out of target	40
Impossible to contact	8
Ineligible - coop.	0
Refusal to the Screener	42
Total	572

		TOTAL
Eligible	1.Elegible establishment (Correct name and address)	482
	2. Elegible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
	3. Elegible establishment (Different name but same address - the firm/establishment changed its name)	0
	4. Elegible establishment (Wrong address - the firm/establishmen has changed address and the address could be found)	0
	16. Panel firm - now less than five employees	0
Ineligible	5. The establishment has less than 5 permanent full time employees	16
	6. The firm discontinued businesses	17
	7. Not a business: private household	1
	8. Ineligible activity: education, agriculture, finances, governments…	6
Unobtainable	91. No reply *(after having called in different days of the week and in different business hours)*	0
	92. Line out of order	0
	93. No tone	0
	94. Phone number does not exist	0
	10. Answering machine	0
	11. Fax line - data line	0
	12. Wrong address/ moved away and could not get the new references	8
	13. Refuses to answer the screener	42
	14. In process *(the establishment is being called/ is being contacted - previous to ask the screener)*	6
	151. Out of target - outside the covered regions, firm moved abroad	0
	152. Out of target - firm moved abroad	0
	153. Impossible to find	0
	154. Establishment is HQ without production or sales in the location	0
	156. Duplicate in the sample	0
	Total	578

A.8.3. Survey and item non-response

The number of completed interviews per contacted establishment was 0.70. This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sampling frame, as represented by the presence of ineligible units. The number of rejections per contact was 0.19.

A.8.4. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local agency	Palestinian Central Bureau of Statistics (PCBS)
Name of Project Manager	
Name and position of other key persons of the project	
Enumerators involved	Enumerators: 16 - West Bank, 9 – Gaza strip
Other staff involved	Fieldwork coordinators: 2 Editing: ~3 Data entry: ~1

Sampling frame

Characteristic of sample frame used	Variables: Name of establishment, address, activity (ISIC Rev. 4 converted to 3.1), telephone number, number of employees
Source	Palestinian Central Bureau of Statistics Establishment Census
Year of publication	2012
Comments on the quality of the sample frame	Very good quality as source was the most recent establishment census, which was finalised in 2013 (dated 2012)
Year and organisation that conducted the last economic census	2012, Palestinian Central Bureau of Statistics
Other sources for companies statistics	None

Mode of implementation

Use of CAPI/CATI technology	All interviews were administered face-to-face by enumerators. A portion of the interviews (those in West Bank) were conducted using 12 electronic tablet devices (CAPI). In data collection phase, IT coordinator(s) were available firsthand to implement updates of the application on PC-Tablets and data entry application. All verifications and consistency checks (for tablet-based interviews) were applied on PC-tablet applications. An error message pops up when entering a wrong value and some error messages show up in red for sensitive questions. Project coordinator in PCBS and committee members as well, tested the CAPI application by entering pilot questionnaires. In general, PC-Tablets were friendly user and easy to be familiar with. The remaining portion of the survey sample was completed using paper questionnaires. The questionnaire contains Main Questionnaire and Innovation ones, for both *Manufacturing* and *Services Activities*. PCBS staff redesigned paper Questionnaire to be 30 papers out of 100 papers. In order to be compatible and friendly user for Gaza team, PCBS staff and interviewers as well, and to make it easier to be used in training, and to increase response.
Additional comments	In addition to the main body of the questionnaire, an 'innovation module' was administered to selected, eligible establishments.

Sample

Comments/problems on sectors and regions selected in the sample	**Sample size:** The sample size is estimated from the World Bank to be about 360

	completed questionnaires. Moreover, PCBS added a random sample to compensate the non-response enterprise, so the total sample size after the addition is 857 projects. **Sample Design Strata:** Besides, projects classification enterprise, there was another classification according to the region and the economical activity (ISIC2), this classification improves the representation of the sample.
Comments on the response rate	As *Gallup* do need 360 completed interviews of required enterprises, and as high number of non-response and in-complete is expected, additional samples were prepared and uploaded more than once.
Comments on the sample design	**Sample design strata:** Beside projects classification enterprise, there was another classification according to the region and the economical activity (ISIC 2-digit), this classification improves the representation of the sample.

Fieldwork

Date of fieldwork	June – August 2013, with additional call-backs and data finalisation lasting until September 2013.
Economy	West Bank and Gaza
Number of completed interviews	434
Problems found during fieldwork	1. Long period of interview since the questionnaire is long; entrepreneurs are used to PCBS questionnaires that do not exceed 13 pages in most cases. Interviewers had to wait for long periods in order to complete questionnaires while respondents had to do other things. 2. Committee Members of PCBS had in many cases to visit non-responding enterprises accompanied by interviewers to convincing them in completing the questionnaire. 3. Filling in the data on financial issues cause the delay for the interview, that mostly caused rejection. 4. Because of high rate of incomplete and rejection we had to upload additional sample. 5. Some enterprises refused to disclose financial data, which made it necessary for supervisors and fieldwork coordinator to intervene to convince entrepreneurs to disclose such data. 6. Entrepreneurs were unavailable in some cases, despite making appointments beforehand, which made interviewer revisit enterprises.
Other observations	

Questionnaires

Problems for the understanding of questions (write question number)	
Problems found in the navigability of questionnaires (for example, skip patterns)	
Comments on questionnaire length	
Suggestions or other comments on the questionnaires	

Quality control

Fieldwork monitoring	
Data checking procedures	
Number of respondents selected for back-checking	
Selection procedures	
Who carried out back-checks?	
Mode of contact	

Number of completed interviews back-checked	
Number of non-responses back-checked	
Results of alternative method of contacting non-respondents	
Description of what was covered in the back-checks	
Number of completed interviews that were rejected and why	

Database

Data entry program chosen	CAPI and entry through a special data entry application used over PC
Comments on the data entry program	
Comments on the data cleaning	

Country situation

General aspects of economic, political or social situation of the country that could affect the results of the survey	
Relevant country events that occurred during fieldwork	
Other aspects	

A.9   Yemen

A.9.1. Sampling structure and implementation

The first sampling frame was supplied by the World Bank and consisted of enterprises interviewed in the 2010 Enterprise Survey in Yemen. The World Bank required that attempts should be made to re-interview establishments responding to the ES 2010 where they were within the selected geographical regions and met eligibility criteria. That sample is referred to as the Panel. The source of the second sample frame, referred to as the Fresh sample here, was the 2010 Establishment Census, obtained from the Central Statistics Office, with updates and validation provided by the local consultant, Yemen Polling Center (YPC).

The quality of the frame was assessed at the onset of the project. The frame proved to be useful though it showed positive rates of non-eligibility, repetition, non-existent units, etc. These problems are typical of establishment surveys, but given the impact these inaccuracies may have on the results, adjustments were needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of contacts to complete the survey was 13.3% (174 out of 1141 establishments).

Regional stratification was defined in 6 regions. These regions are Amanat Al-Asemah, Aden, Hudaydah, Hadhramawt, Ibb and Taizz. Other governorates were not covered by the survey.

Governorate	ES region
Amanat Al Asemah	Amanat Al-Asemah (Sanaa)
Sanaa	
Aden	Aden
Hudaydah	Hudaydah
Hadhramawt	Hadhramawt
Ibb	Ibb
Taizz	Taizz
Amran	Not covered
Abyan	
Ad Dali	
Al Bayda	
Al Jawf	
Al Mahrah	
Al Mahwit	
Dhamar	
Hajjah	
Lahij	
Marib	
Raymah	
Sadah	
Shabwah	

Sampling frame

Fresh

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
Amanat Al-Asemah (Sanna)	5-19	1510	791	2296	4597
	20-99	73	44	180	297
	100+	11	5	13	29
	Total	**1594**	**840**	**2489**	**4923**
Aden	5-19	346	186	659	1191
	20-99	19	13	50	82
	100+	9	0	11	20
	Total	**374**	**199**	**720**	**1293**
Hudaydah	5-19	611	228	841	1680
	20-99	26	13	44	83
	100+	12	1	3	16
	Total	**649**	**242**	**888**	**1779**
Hadhramawt	5-19	366	104	530	1000
	20-99	24	13	21	58
	100+	7	0	3	10
	Total	**397**	**117**	**554**	**1068**
Ibb	5-19	211	170	356	737
	20-99	4	12	11	27
	100+	0	0	0	0
	Total	**215**	**182**	**367**	**764**
Taizz	5-19	519	239	776	1534
	20-99	18	12	25	55
	100+	17	0	3	20
	Total	**554**	**251**	**804**	**1609**
Grand Total		**3783**	**1831**	**5822**	**11436**

Source: 2010 Establishment Census

Panel

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
Amanat Al-Asemah (Sanna)	5-19	31	6	24	61
	20-99	20	13	14	47
	100+	10	1	12	23
	Total	**61**	**20**	**50**	**131**
Aden	5-19	23	17	10	50
	20-99	12	3	14	29
	100+	5	1	3	9
	Total	**40**	**21**	**27**	**88**
Hudaydah	5-19	39	16	12	67
	20-99	10	1	8	19
	100+	5	0	0	5
	Total	**54**	**17**	**20**	**91**
Hadhramawt	5-19	13	7	6	26
	20-99	9	0	3	12
	100+	6	1	0	7
	Total	**28**	**8**	**9**	**45**
Ibb	5-19	19	6	9	34
	20-99	3	0	3	6
	100+	0	0	0	0
	Total	**22**	**6**	**12**	**40**
Taizz	5-19	33	14	11	58
	20-99	7	0	9	16
	100+	6	0	2	8
	Total	**46**	**14**	**22**	**82**
Grand Total		**251**	**86**	**140**	**477**

Source: World Bank Enterprise Survey Yemen, 2010.

Original sample design

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
Amanat Al-Asemah (Sanna)	5-19	16	23	41	80
	20-99	5	34	5	44
	100+	15	4	17	36
	Total	**36**	**61**	**63**	**160**
Aden	5-19	4	4	4	12
	20-99	4	7	4	15
	100+	11	1	9	21
	Total	**19**	**12**	**17**	**48**
Hudaydah	5-19	4	4	4	12
	20-99	4	7	4	15
	100+	12	1	2	15
	Total	**20**	**12**	**10**	**42**
Hadhramawt	5-19	4	4	4	12
	20-99	4	7	4	15
	100+	9	1	2	12
	Total	**17**	**12**	**10**	**39**
Ibb	5-19	4	4	4	12
	20-99	4	7	4	15
	100+	0	0	0	0
	Total	**8**	**11**	**8**	**27**
Taizz	5-19	4	4	4	12
	20-99	4	8	4	16
	100+	12	0	4	16
	Total	**20**	**12**	**12**	**44**
Grand Total		**120**	**120**	**120**	**360**

Achieved sample (based on a2, a4a and a6a)

Region	Employees	Manufacturing	Retail	Other Services	Grand Total
Amanat Al-Asemah (Sanna)	5-19	19	42	29	90
	20-99	15	12	16	43
	100+	7	0	9	16
	Total	**41**	**54**	**54**	**149**
Aden	5-19	7	9	2	18
	20-99	9	3	11	23
	100+	1	0	2	3
	Total	**17**	**12**	**15**	**44**
Hudaydah	5-19	5	10	6	21
	20-99	8	2	8	18
	100+	2	0	0	2
	Total	**15**	**12**	**14**	**41**
Hadhramawt	5-19	10	9	5	24
	20-99	12	3	9	24
	100+	5	0	0	5
	Total	**27**	**12**	**14**	**53**
Ibb	5-19	8	5	2	15
	20-99	3	0	2	5
	100+	0	0	0	0
	Total	**11**	**5**	**4**	**20**
Taizz	5-19	5	5	8	18
	20-99	10	1	12	23
	100+	4	0	1	5
	Total	**19**	**6**	**21**	**46**
Grand Total		**130**	**101**	**122**	**353**

Note: due to issues of high observed weights and strata-related non-response, weights were collapsed over location, pooling observatons for Aden, Hudaydah and Taizz.

A.9.2. Status codes

	TOTAL	FRESH	PANEL
Complete interviews **(Total)**	353	216	137
Complete interviews (not eligible for innovation)	138	93	45
Complete interviews (with innovation)	199	113	86
Complete interviews (eligible, but refused to answer innovation)	16	10	6
Incomplete interviews	0	0	0
Elegible in process	8	5	3
Refusals	96	57	39
Quota is met	0	0	0
Out of target	166	125	41
Impossible to contact	434	329	105
Ineligible - coop.	8	0	8
Refusal to the Screener	76	40	36
Total	1141	772	369

		TOTAL	FRESH	PANEL
Eligible	1.Elegible establishment (Correct name and address)	127	59	68
	2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	1	1	0
	3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	46	31	15
	4. Elegible establishment (Wrong address - the firm/establishmen has changed address and the address could be found)	256	187	69
	16. Panel firm - now less than five employees	27	0	27
Ineligible	5. The establishment has less than 5 permanent full time employees	53	53	0
	6. The firm discontinued businesses	29	15	14
	7. Not a business: private household	63	37	26
	8. Ineligible activity: education, agriculture, finances, governments…	21	20	1
Unobtainable	91. No reply *(after having called in different days of the week and in different business hours)*	73	46	27
	92. Line out of order	117	67	50
	93. No tone	39	28	11
	94. Phone number does not exist	4	0	4
	10. Answering machine	0	0	0
	11. Fax line - data line	1	0	1
	12. Wrong address/ moved away and could not get the new references	200	188	12
	13. Refuses to answer the screener	76	40	36
	14. In process *(the establishment is being called/ is being contacted - previous to ask the screener)*	0	0	0
	151. Out of target - outside the covered regions, firm moved abroad	0	0	0
	152. Out of target - firm moved abroad	3	0	3
	153. Impossible to find	5	0	5
	154. Establishment is HQ without production or sales in the location	0	0	0
	156. Duplicate in the sample	0	0	0
	Total	1141	772	369

A.9.3. Survey and item non-response

The number of completed interviews per contacted establishment was 0.37. This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which

includes rejections of the screener and the main survey) and the quality of the sampling frame, as represented by the presence of ineligible units. The number of rejections per contact was 0.20.

A.9.4. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local agency	Name: Yemen Poling Center (YPC) Country: Yemen Membership of international organisation: Activities since:
Name of Project Manager	
Name and position of other key persons of the project	
Enumerators involved	
Other staff involved	

Sampling frame

Characteristic of sample frame used	
Source	World Bank Enterprise Survey Yemen 2010 and 2010 Establishment Census, Central Statistics Office
Year of publication	2010
Comments on the quality of the sample frame	
Year and organisation that conducted the last economic census	2010 Establishment Census, Central Statistics Office

Sample

Comments/problems on sectors and regions selected in the sample	
Comments on the response rate	
Comments on the sample design	
Other comments	

Fieldwork

Date of fieldwork	March 2013 – July 2014
Country	Yemen
Number of completed interviews	353
Problems found during fieldwork	
Other observations	

Questionnaires

Problems for the understanding of questions (write question number)	
Problems found in the navigability of questionnaires (for example, skip patterns)	
Comments on questionnaire length	
Suggestions or other comments on the questionnaires	

Quality control

Fieldwork monitoring	
Data checking procedures	All verifications and consistency checks (for tablet-based interviews) were

	applied on PC-tablet applications. An error message pops up when entering a wrong value and some error messages show up in red for sensitive questions. Yemen Poling Center conducted ongoing callbacks at the direction of Gallup throughout the fieldwork period. Callbacks were also made to correct invalid responses, to get more detail on the string variables and to complete questions the respondent originally declined to answer.
Number of respondents selected for back-checking	
Selection procedures	
Who carried out back-checks?	
Mode of contact	
Number of completed interviews back-checked	
Number of non-responses back-checked	
Results of alternative method of contacting non-respondents	
Description of what was covered in the back-checks	
Number of completed interviews that were rejected and why	

Database

Data entry program chosen	
Comments on the data entry program	
Comments on the data cleaning	

Country situation

General aspects of economic, political or social situation of the country that could affect the results of the survey	
Relevant country events that occurred during fieldwork	
Other aspects	
Results of alternative method of contacting non-respondents	
Description of what was covered in the back-checks	
Number of completed interviews that were rejected and why	

Database

Data entry program chosen	
Comments on the data entry program	
Comments on the data cleaning	

Country situation

General aspects of economic, political or social situation of the country that could affect the results of the survey	
Relevant country events that occurred during fieldwork	

Other aspects	