New statistical method to improve the quality of Official statistics in CAPMAS (Opportunities and Challenges)

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Contents:

1- Introduction.
2- The methodology and data sources
3- The most important results
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1-1. Quality control is a process which is used to ensure a certain level of quality in a statistical product. The quality control unit in CAPMAS has an integrated role to improve the quality of official statistics and surveys, as well as evaluating surveys' methodology and improving the performance of employees.
1-2. Quality levels

Quality of process

Quality of Product

QUALITY OF organization
The development of quality concepts.

Leadership

- Quality Inspection
- Quality Control
- Quality Assurance
- Total Quality Management
- Business Excellence
- Sustainable Excellence

Expectations
1-3. Egypt Map.

- Cairo
- Aswan
- Suez
- Alexandria
- Port Said
- Matruh
- Sallum
- Mediterranean Sea
- Libya
- Sudan
- Red Sea
- Dead Sea
- Israel
- Jordan
- Saudi Arabia

Distances:
- 500 km
- 1200 km
2- Methodology and data sources:

1. Field work: where CAPMAS quality control unit is drawing a random sample of one hundred and five households (105 questionnaires) covering five sampling areas for (7 governorate).

2. Call-back: drawing a random sample of all governorates (After excluding of the planned areas for the field work) with almost 40% of the interviewed households in the phase of collecting data (Labor Force survey) 134 sampling areas have been drawn with total of (2348) questionnaires covering all of Egypt.
### 3.1. The most important results

3.1. Table (1-1) shows the situation of telephone and the response of households (1).

<table>
<thead>
<tr>
<th>S</th>
<th>Telephone situation</th>
<th>Numbers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Working number and households are respond</td>
<td>1187 out of 2054</td>
<td>58%</td>
</tr>
<tr>
<td>2</td>
<td>Wrong numbers.</td>
<td>169 out of 2054</td>
<td>8.2%</td>
</tr>
<tr>
<td>3</td>
<td>Out of service numbers.</td>
<td>74 out of 2054</td>
<td>3.6%</td>
</tr>
<tr>
<td>4</td>
<td>No answer after repeated calls</td>
<td>297 out of 2054</td>
<td>14.5%</td>
</tr>
<tr>
<td>5</td>
<td>not available/ switched off</td>
<td>252 out of 2054</td>
<td>12%</td>
</tr>
<tr>
<td>6</td>
<td>Households refused to respond</td>
<td>75 out of 2054</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

(1). The numbers of the questionnaire that hasn’t telephone number is 294
3-2-The most important results

3-3. **Figure (1-1)** shows the percentage of previous three errors according to governorate.
3-2. Table (1-2) shows the total number and the percentage of main errors.

<table>
<thead>
<tr>
<th>Total households</th>
<th>total number of errors</th>
<th>%</th>
<th>Matching errors by respondent</th>
<th>Difference errors by respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1187</td>
<td>85</td>
<td>7 %</td>
<td>32</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>37 %</td>
<td>63 %</td>
</tr>
</tbody>
</table>
3-3. The most important results

Errors affecting on the number of the employed and the unemployed:

• The differences between data collector and Call-back researcher were (16) errors which equal (35%) of the total errors distributed as following:
  • The field researcher record 8 persons outside labor force although they are already having a job.
  • The Data Collector record 1 person as inside labor force who is having a job outside the labor force.
  • The Data Collector record 1 person as unemployed although he/she is outside the labor force.
  • The Data Collector record 5 person as unemployed persons which in fact they are working.
3-6. The most important results

- Errors affecting the Educational status and the difficulties and the profession:
  Numbers of differences between The Data Collector and Callback controller have been recorded regarding some household members in basic data (educational status and difficulties). There are (14) differences which represents 33% of the total errors.

  Numbers of differences between The Data Collector Callback researchers have been registered regarding profession nature of some household members. There is (1) difference which represents 2.3% of the total errors.
A number of 100 households have been interviewed, and we could not interview 5 households, (three of them in Cairo and two in Qaliubiya).

The most important errors are concentrated in recording the basic data, main labor force, education questions, difficulties, and the calculation of employed and unemployed.

• The highest difference percentage between the data collector and quality controller is 2% in (Qaliubiya, Dakahlia, Beni Suef).

The best governorates are (Cairo - Beheira - Fayoum).

Error affecting basic data (educational status and difficulties):
A- Best governorates in education were (Beheira - Fayoum), highest difference percentage was in Qaliubiya.

B- Best governorates in difficulties were (Cairo – Qaliubiya - Beheira - Gharbia - Fayoum - Beni Suef), and highest difference percentage in difficulties was Dakahlia.
3-4. The most important results

3-5. Figure (2-1) the following diagram shows the results for each governorate:

![Bar Chart]

- Gharbia: 1.2%
- Qaliubiya: 1.1%
- Dakahlia: 0.7%
- Beheira: 0.5%
- Bani Sweif: 0.2%
- Cairo: 0.1%
- Fayoum: 0.1%

The percentage difference %
### 3-5. The most important results

#### 3-6. Table (2-2): errors affecting basic data (educational status and difficulties):

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Number of Households’ members</th>
<th>Number of individuals that have difference</th>
<th>%</th>
<th>Number of individuals that have difference</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairo</td>
<td>41</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Qaliubiya</td>
<td>53</td>
<td>5</td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Beheira</strong></td>
<td>63</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Gharbia</td>
<td>58</td>
<td>4</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dakahlia</td>
<td>56</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1.8</td>
</tr>
<tr>
<td>Fayoum</td>
<td>73</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bani Sweif</td>
<td>59</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>403</strong></td>
<td><strong>14</strong></td>
<td><strong>3.5</strong></td>
<td><strong>1</strong></td>
<td><strong>1.8</strong></td>
</tr>
</tbody>
</table>


3-5. The most important results

3-7. Figure (2-2) the difference parentage in difficulties & educational status.
5-1. Swot analysis

- **Strengths:**
  - High coverage and reliability.
  - Decreasing in the cost.
  - Decreasing in the time.
  - Coverage some dangerous areas.
5-2. Swot analysis

- Weaknesses
  - The difficulty of communication in some areas.
  - Lack of trained workers.
  - Lack of electronic equipment
5-3. Swot analysis

- **Opportunities**
  - Availability of qualified senior campaign.
  - Coverage all the surveys and research.

- **Threats**
  - Weak financial remuneration.
  - Slowdown in senior management decision-making.
Thank you

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