Strategies to Improve the Supervision of Survey and Census Implementations in Iran

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Introduction
The performance of a system is arranged in the form of plans, standards and principles which are the framework of an organization. All the activities should be within this framework in order to achieve the goals. The main and final aim of supervision is simply to determine whether the organization or institution has achieved its goals or not? And how much of the goals are achieved?

In order to ensure compliance with program activities, standards, criteria and possible deviation reform, regulatory supervision structures are established.

Supervision is the comparison of performance with what should be done in practice.

The three important factors in the supervision include:
1. Observation or collecting data and information about performance.
2. Data analysis and comparing results with performance criteria and regulations in the organization and recognition contradictions.
3. Approaches to improve the contradictions.

Supervision: 1- Observation 2- Suggestion and Modification 3- Defining the Contradictions

Surveillance system consists of three basic elements of "supervisor", "supervised" and "communication network".

Supervision purposes
1. Identification and correction of the deviations.
2. Informing the managers and the executives about the results of the implemented programs.
3. Assessment of the performance based on the objectives.
4. Assessment of the methods and processes, implementing plans and policies.
5. Assessment of the efficiency and effectiveness.
6. Assessment of the quality of the services and products.

Consequences of the lack of supervision
1. Deviation from the plans and objectives.
2. Not recognizing the errors in the plans.
3. Widespread violation.
4. Applying Personal view.
5. Continuation of the wrong methods.

Optimal supervisory structure
1. Supervision as a specialty must be kept away from politics.
2. Supervision should be independent.
3. Supervision programs should be based on objective planning.
Types of supervision

1- Before conducting a surveillance activities.
Supervise the implementation and provision of guidelines to ensure that methods are consistent with the criteria in the standards.

2- While conducting surveillance activities.
At this stage, physical presence and continuous supervision process to do the essential work is necessary. The supervision is more important because any report on the deviations will result in immediate action to resolve them.

3- After conducting a surveillance activities.
At this stage, the results and their publication are supervised.

Supervision of Survey and Census Implementations in Iran

Considering the fact that, in Iran, the survey data are commonly obtained by direct interviews and the staff are mostly trained in the Statistical Center of Iran, a supervisory system that controls the implementation seems crucial. Besides, the limited extent of the operations along with the implementation time causes non-sample errors in a systematic or nonsystematic way, which necessitates the existence of an effective and precise supervision system.

The supervisory system should be designed so that it runs independently and does not create problems for project implementation.

1- Centralized supervision system.
A surveillance system in which the regulatory information in the province is coordinated by a limited group. While coordination between supervisors, inclusive and comprehensive regulatory supervision systems are performed.

2- Practical results.
Supervision results in each of the stages of supervision (administrative organization affairs support, advertising and information, training, Implementation), provide appropriate and useful indicators for decision-making.

3- Standardization of the supervision activities in the country.
Coordination in supervision system and applying standard methods for supervision at all stages of implementation, provides the possibility to compare the results of the supervision for all the supervisors and makes them act similarly.

Targets

1- General targets.
The purpose of the supervision plan is to make the plan objectives operational and in accordance with the desired standards, to control the activity processes in accordance with the timetable and finally to provide appropriate information for the manager.

2- Detailed targets.
   a)Identification of the current problems in the implementation of surveys in different geographical and administrative levels.
   b)Analysis of the work progress of each of the desired activities, according to the collected data collected and their evaluation.
   c)Qualitative evaluation of the information contained in the questionnaires and forms in accordance with the desired standards.
   d)Preparation of the supervision reports along with the reports related to quality evaluation and assessment plan to present to the managers.

Supervision levels
Supervision domain includes all the stages of design (i.e. subjective plan, sampling plan, training plan); Implementation (i.e. advertising, recruitment, training and field operations), mining, publishing results
and information.

1- **Supervision the Design**

The structure of a statistical design (census and sample) should meet all the necessary:

- Subjective plan (general targets, detailed targets, definitions and concepts, Final Tables, Questionnaire).
- Sampling plan
- Education plan (methods of education, Training aid equipment, educational assessment methods, training period).
- Executive plan (Executive Organization, duties staff, relationship or link between the staff, tools and equipment used.
- Publishing plan.
- Pining plan.
- Mapping Plan.

In order to supervise the design, standards should be compared with the structure of the proposed design. If differences exist they should be corrected or the design should be prevented from implementation. For this purpose a form is designed which contains the required standards and lets the supervisors perform a better comparison.

2- **Supervision the Implementation**

At this stage the workflow and activities of the highest executive organization to the lowest category would be supervised and evaluated. The supervision starts at the organizing stage and continues to the final stage of the field operations. The supervisors go to the provinces and assess the situation of provinces for Implementation and possible problems and report to the managers or Statistical Center of Iran (SCI) for decisions and provide appropriate strategies.

a) Supervision the recruitment.

Effective and professional enumerator that knows statistical activities, directly improves the quality of statistical activities and consequently increases the accuracy of statistical information. Therefore volunteers participating in the implementation plan should have some special capabilities. By supervision this stage, suitable persons for surveys are chosen.

According to the Organization Chart, the supervisor must evaluate enumerator, inspectors etc.

b) Supervision the administrative and financial affairs.

Equipment required for each province is determined based on the list, including questionnaires, forms and manuals, teaching equipment, identification cards, required vehicle and control the quality and quantity of this equipment, administrative and financial plan guidelines and supervision should be investigated.

Supervisor must also analyze and assess the credit, contracts, insurance, wages predicted time and timeliness of payments in accordance with procedures defined in instruction manual.

c) Supervision the advertisement.

If respondents be informed about targets and goals and the practical applications of the collected data, they will cooperate better. Therefore, advertising is important to inform the respondents.

According to the advertisement plan, advertising can be implemented in different ways, including TV and radio, newspapers, billboard, brochures, posters, etc while they are continuously supervised.

d) Supervision the training.

Each plan activity need the skills and expertise of executive agents. Executive and technical agents must learn definitions and concepts, guidelines, how to complete forms and other relevant matters and train them. The teaching activities, teachers characteristics and appropriate environment (the classes characteristics), training duration, use of teaching facilities, efficiency of the exams and grading should be supervised.

e) Supervision the field operation.

Experiments of different survey implementations (sample - census) show that the possibility of error in
the phase of field operations is higher than the other stages. At this stage, due to the geographical area of the implementation, high probability of respondents’ errors and limited time for implementation the errors and their sources need to be identified. This process directly affects and improves the results. Therefore provision of an effective supervision system is a major step in the prevention of systematic and non-systematic errors. Therefore it is considered as the supervision plan goal.

**Criteria for selecting the supervisors**
1-University bachelor's degree or higher
2-Supervision experience
3-Participation in the training workshop and obtaining satisfactory results at the end of the course period (minimum score: 85 of 100)
   “Usually for supervision the surveys, supervisors train the requirements points in a training course”
4-Physical health
5-Knowledge of the local language of the supervision region(Preferable but not required)

**Supervision the implementation method by the supervisor**
1-Supervise and evaluate some of the completed questionnaires by each enumerator before and after inspection.
2-Questionnaires are required to be selected and evaluated from all staff(enumerators and inspectors) to assess their performance.
3-Revisit or call a numbers of statistical units where the questionnaires are completed at, to check (control) the enumerators.
4-Refer to numbers of statistical units along with the enumerator to evaluate how questionnaires are completed and how they treat with the respondent.

In order to supervise and integrate, the forms are designed. Supervision is required to assess the implementation at different stages to complete the forms and give to SCI for making suitable decisions in due time.

The design of these forms depend on survey’s type(census, sampling, current survey, etc.) Sometimes one form is designed, sometimes more than one (Separately for advertising, recruitment, training and field operations)

The table below is an example of a simple form:
It is possible to design forms, including organization, advertising etc

<table>
<thead>
<tr>
<th>Error Cases after supervision</th>
<th>Stage of supervision</th>
<th>Score of Test</th>
<th>Education</th>
<th>Experience in implementation of survey or census</th>
<th>Sex</th>
<th>Age</th>
<th>Type of agent</th>
<th>Name &amp; last name of enumerator or inspector</th>
</tr>
</thead>
<tbody>
<tr>
<td>During survey 1</td>
<td></td>
<td></td>
<td>Diploma  1</td>
<td>Yes 1</td>
<td>Male 1</td>
<td></td>
<td>Enumerator 1</td>
<td></td>
</tr>
<tr>
<td>Refer again 2</td>
<td></td>
<td></td>
<td>Bachelor 2</td>
<td>NO2</td>
<td>Female 2</td>
<td></td>
<td>inspector 2</td>
<td></td>
</tr>
<tr>
<td>Investigate before the inspection 3</td>
<td></td>
<td></td>
<td>Master degree 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investigate after the inspection 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Conclusion
Since most surveys and all the census, "particularly in Iran," are implemented by interviewing and the enumerators refer to the statistical units and gather the information from respondents and insert in a questionnaire, during the implementation, non-sample error possibility occurs for example in training or from the mistakes of enumerator or inspector. Therefore an independent and effective supervision system is necessary to prevent errors (this system include supervisors). This system should be integrated and centralized at all stages of implementation including (advertising, recruitment, training, field operations), mining, publishing results. Hence, using the reports from supervision, the problems that occur during the implementation and the causes of non-sample errors (feature (characteristic) of enumerators, education, Inappropriate advertisements ...) are identified and resolved for the next implementation or surveys. Since the main organization of statistical production is SCI, and the necessary standards are developed in this center, surveillance systems need to be focused in the SCI and the responsibility of supervision is also on this organization.

Subtitle
Most of surveys are implemented by interviewing, and the enumerators refer to the statistical units and gather the information from respondents. Then it is important to supervise the implementations. We provide the stages of supervision, Determine the characteristics and tasks of supervisors and prepare the forms that they should complete them with their observations. And reduce the non sample errors with supervision.

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RÉSUMÉ (ABSTRACT)
An effective and efficient supervision system is a major component of the four management principals which include Planning, organization, Coordination and Supervision. Supervision has an important role in the management and supervision of statistical surveys, by comparing the current performances with the standards and regulated patterns, and resolving the possible deviations. Considering the fact that, in Iran, the survey data are commonly obtained by direct interviews and the staff are mostly trained in the Statistical Center of Iran, a supervision system that controls the implementation seems crucial. Besides the limited extent of the operations along with the implementation time, causes non-sample errors in a systematic or nonsystematic way, which necessitates the existence of an efficient and precise supervision system.

In this study we first analyze different stages of the survey and census processes in Iran. These stages include design (i.e. subjective plan, sampling plan, executive plan, training plan, mapping, mining); Implementation (i.e. advertising, recruitment, training and field operations); Mining and Publishing the survey and census results. We then present an effective and efficient supervision system which reduces the non-sample errors. Regarding the current survey and census implementations in Iran we try to address these questions: Is it beneficial for a productive facility to also run as a supervision unit? Is it necessary to have an independent supervision organization? How to perform the supervision so that it does not interfere with the implementation? How to prepare the supervision forms? How can we choose supervisors and what are the characteristics of them?