General Framework

Charter of Quality of Statistical Data

Emirate of Dubai

Preface

Dubai Statistics Centre (DSC) was established in 2006, and its tasks and authorities were identified to build a modern and integrated statistical system to be the official source and the only reference for data and statistical information collection, processing, analysis, and dissemination, and to enable keeping up with the strategic shift and the accelerated growth in the Emirate of Dubai in all sectors and economic, social, and demographic levels.

To achieve the tasks of DSC and to face various statistical challenges, it was among its priorities to set up a strategic plan for statistical work that lead to happiness and sustainable development in the Emirate of Dubai, leads DSC to assume a distinguished position worldwide, and provides data and statistical information to policy makers, decision makers, and all users, by working according to the latest technology and international standards and practices. The Electronic Statistical System, which DSC prepared and developed under this plan, is one of the most significant initiatives and achievements made by DSC during the short period since its inception, through the preparation and adoption of integrated systems for the management and automation of statistical as well as the assistive work DSC that meets, in total, the statistical quality standards and requirements.

In the past, the world's attention was focused on the accuracy and modernity of statistical data as two key dimensions of quality, and tangible successes at the global level in the area of standards and methodologies for collection, compilation, and dissemination of statistical data were achieve, and since the mid-1980s, the focus was shifted to other dimensions of the quality of statistical data represented in many special versions of the bases and principles of statistical data quality, the most significant of which are the Fundamental Principles of Official Statistics issued by the United Nations (UN), Declaration of Professional Ethics, accredited by the International Statistical Institute (ISI), Statistical Data Quality Framework which, contained the Enhanced General Data Dissemination System (GDDS), issued by the International Monetary Fund (IMF), and the National Quality Assurance Framework issued by the United Nations Statistical Commission (UNSC) in April 2012.

Currently, with the increasing demand for statistical data and information, their diversity and variety of sources, more than ever, the most significant challenges faced by DSC are providing high- quality, most accurate, timely, and easily available statistical data and information for all classifications of users. This challenge is now facing all statistical institutions and bodies at both national and international levels.

DSC is committed, both systematically and practically, to ensure quality of statistical data of all outputs and in a way that meets the aspirations and needs of users through enjoyment of the following features:

- **Relevance**: This standard of quality focuses on linking data relationships that most expresses the issues and circumstances that concern the beneficiaries (users) and meets their basic needs.

- **Accuracy**: This standard means the accuracy of the data in terms of description of the phenomenon that is designed to measure and explaining of its characteristics, and avoiding errors in estimating it, which is usually biased as a result of the sampling errors, inclusiveness, representation, and others.

- **Timeliness and Punctuality**: This standard means that statistical data loses its credibility and significance if they exceed the reference date to be adopted in measuring a certain service.

- **Accessibility and Clarity**: Customers' (users') accessibility to statistical data and the clarity of statistical data is a significant factor in determining the quality of data.

- **Comparability**: The statistical data must be comparable over time and at local, national, and regional levels according to specific and standardized concepts, variables, classifications, methodologies, and techniques.

- **Coherence**: The state of coherence and cohesion between the statistical data reflect the preparation level of the stage of data collection through a broad analytical framework that adopts standard methodologies in production of statistical data at a specific time.

- **Completeness**: The statistical data must be comprehensive, complete, and intact in order to measure a phenomenon.

In this context, DSC has prepared this general framework of statistical data quality "Charter of Statistical Data Quality of Dubai" which aims mainly at consolidating the principles of statistical work in Dubai in order to produce high-quality statistical data and to enhance the confidence of the various customers of the data disseminated by DSC.

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Introduction

Demand for accurate information and statistical data is growing at the present time more than ever. All States and institutions seek to obtain data of high accuracy, reliability, quality, and modernity. Given the diversity of such demand and the multiplicity of its dimensions and sources, principles and foundations for the collection, compilation, and dissemination of statistical data and making them available to users in a timely manner— have been developed. The international community has contributed, through UN organizations and specialized international institutions, to developing these bases and principles.

The Charter of Data Quality aims at standardizing the principles of statistical work in Dubai to produce high-quality statistical data and to enhance the confidence of the various clients in the data issued by DSC.

Most significant among these aims are the following:

1. A specific and declared framework for the elements, dimensions, and indicators of quality of statistical data in the Emirate.
2. Enhancing the confidence of clients and users of data in the statistical data published by DSC.
3. Combining efforts of all producers of data to improve the statistical outputs.
4. Consolidating traditions and a culture for statistical data quality standards.
5. Spreading awareness of the culture of data and information quality.
6. Supporting the endogenous capacity of institutions that produce data and information to conduct self-assessment.
7. Providing a system for comprehensive assessment of statistical data and information according to approved standards for each type of data.

According to the general form of the National Quality Assurance Framework issued by the United Nations Statistical Commission (UNSC) in April 2012, the key principles of data quality issued by the UN, the Enhanced General Data Dissemination System (GDDS) issued by the International Monetary Fund (IMF), the key principles of official statistics issued in January 2014, and the international practices in this area. DSC prepared a "General Framework of the Charter of Quality of Statistical Data in Dubai" including the principles of quality statistical data for poll studies, surveys, and administrative "record" data of the various bodies in the Emirate.

Fundamental Principles of Official Statistics

In 1992, the United Nations Economic Commission for Europe (UNECE) adopted the fundamental principles of official statistics in the UNECE region. The United Nations Statistical Commission adopted these principles in 1994 at the global level. The Economic and Social Council (ECOSOC) endorsed the Fundamental Principles of Official Statistics in 2013; and in January 2014, they were adopted by General Assembly. In January of 2014, they were adopted by the General Assembly. This recognition at the highest political level underlines that official statistics - reliable and objective information - is crucial for decision making.

Principle 1: Relevance, impartiality, and equal access to official statistics

Official statistics provide an indispensable element in the information system of any democratic society, serving the government, the economy, and the public with data about the economic, demographic, social, and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honor citizens' entitlement to public information.

Principle 2: Professional standards and ethics

To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.

Principle 3: Accountability and transparency

To facilitate a correct interpretation of the data, the statistical agencies are to present information according to scientific standards on the sources, methods and procedures of the statistics.

Principle 4: Prevention of misuse of official statistics

The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.

Principle 5: Sources of official statistics

Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.

Principle 6: Confidentiality (Privacy)

Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.

Principle 7: Legislation

The laws, regulations and measures under which the statistical systems operate are to be made public.

Principle 8: National coordination

Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.

Principle 9: Use of international standards

The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all officiallevels.

Principle 10: International cooperation

Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.

1. **Context of Quality**

In line with the Dubai Plan 2021 requirements of statistical data and indicators and in line with the current quality management system at DSC, and in order to provide accurate and updated data to decision makers and policy makers, DSC took initiative in preparing and approval of a charter for the quality of the data produced by DSC as well as for the administrative records data in various bodies in the Emirate of Dubai.

2. **Concepts and Frameworks of Quality**

Almost all the literature about data quality agree on the definition of quality "from a statistical perspective" as: preparation of statistical data within an institutional environment professionally, impartially, and closely related to the specific goals and needs of users, using a standard methodology of a clear framework, and subjecting the data to clear and specific scientific and practical procedures of a regular process in order to ensure its integrity, reliability, concreteness, and comparability, while taking efficiency into account. In addition, making data available to everyone equally, in a timely, and in a style that is easily accessible, easy to use, and highly flexible.

Among the most significant of these principles are the bases of data quality which started to capture world's attention since the beginning of the eighties of the last century. Many manuals and standards were issued for measuring and assessing data quality among the most significant of which are the Fundamental Principles of Official Statistics issued by the UN, Declaration of Professional Ethics accredited by ISI, and Statistical Data Quality Framework which contained the GDDS issued by the IMF.

3. Guidelines for Quality Assurance

The UN has adopted several charters associated with data quality which include the key principles of quality assurance. DSC has adopted the key guidelines for quality assurance issued by the UN. DSC, through partnership and cooperation with all government departments and private institutions, will encourage these bodies to adhere to those principles in order to ensure preparation of high- quality statistical data. These guidelines will be addressed within the General Framework adopted by DSC for quality of data and statistical outputs, as follows:

3.1 Management of the Statistical System

Law No. 23 of 2006 on the establishment of the Dubai Statistics Center and Law No. 28 of 2015 on the Dubai Statistics Center are the basis for management of the statistical system in the Emirate of Dubai, where it guarantees the judicial and legal capacity for management of the statistical work by DSC in the Emirate. In order to organize and manage the statistical work in the Emirate and to ensure smooth flow of statistical data from all bodies operating in the Emirate at the highest possible quality, DSC designed the Electronic Statistical System which includes the official bodies' databases as well as the databases of surveys and poll studies conducted by DSC, which saved effort, time, and money on one hand, and ensured timely provision of statistical data for all categories of customers on the other hand.

The Quality and Environment Policy we, in DSC, are systematically committed to, ensures the quality of our statistical services in a way that meets the needs of both partners and customers and that ensures the preservation of environment, through working according to the institutional excellence standards and quality and environment management systems ISO 9001:2015 and ISO 14001:2015, security and confidentiality of information system, customers service management system 10004:2012, customers' complaints management system 10002:2014, and OHSAS 18001:2007. We will achieve this by continuing to:

1. Develop the professional and knowledge level of our human resources and promote and activate their participation in the processes of development and improvement.

2. Plan, implement, and review our goals, policies, and operations.

3. Comply with the relevant federal and local legislations.

4. Strengthen our commitment to the community by adopting environmental practices and preventing pollution resulting from our activities.

3.1.1 Coordination of the Statistical System

DSC gives great importance to statistical coordination at various levels, as it formed the Statistical Coordination Committee in the Emirate of Dubai that includes many local and official bodies. In addition, DSC formed several committees and teams of work in partnership with various bodies operating in the Emirate.

At the national level, DSC is the main supporter of all the senior, technical, and specialized committees in various areas of statistical work at the State level. It is necessary to work on the following:

1. Permanent coordination with all local producers of official statistics in the various areas of statistical work.
2. Coordination and building partnerships with all statistical bodies within the State.
3. Consistency and efficiency in the statistical system locally and nationally.
4. Improvement of the official statistics systems in the Emirate through building strategic partnerships in the field of statistics.

3.1.2 Management of Relationships with Users and Data Producers

Since its inception, DSC built a system for customers that is called "Customer Service System" to meet their needs and requirements as quickly as possible. Out of its keenness to engage with the different categories of customers, DSC periodically surveys customers' opinions to identify the level of their satisfaction about DSC and its releases, as well as to identify their requirements, needs, suggestions, and notes with the aim of enhancing strengths and working on improvement of the statistical work. In order to improve partnerships between data producers and users, i.e. decision makers and policy makers, researchers, investors, and students, DSC should work on the following:

1. Identifying and meeting the requirements and needs of all data users, at all levels and categories.
2. Permanent and continuous communication with all data users and considering their opinions in order to ensure the provision of needs-relevant statistics.
3. Identifying the basic statistics that reflect the demographic, social, and economic reality.
4. Identifying the statistical calendar in consultation with data users in order to identify priorities in advance.

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3.1.3 Management of Statistical Standards

The status and efficiency of statistical bodies in various countries of the world is resulted from the efforts exerted by those bodies in the form of procedures and methods through which they promote the use of concepts, definitions, classifications, and methodologies adopted worldwide, and their consistency with the statistical systems and efficiency at all official levels. This is done through:

1. Detailed documentation of methodologies and work mechanisms used in statistical work.
2. Design of key processes in the field of statistical work.
3. Building and preparing metadata for all statistical data and indicators.
4. Identifying the statistical work mechanisms in order to ensure the sustainability of gained experiences.
5. Creation of a knowledge department that ensures access to implicit and explicit knowledge in the field of statistical work.
6. Creation of an organizational unit for standards and methodologies for update of the methodologies, standards, and mechanisms of statistical work.

3.2 Management of the Institutional Environment

The statistical bodies' adoption of precise standards and technical bases that contain scientific principles and professional standards, which leads to maintaining trust in the official statistics, is the best proof of the management and efficiency of the institutional environment, provided that it is done according to the best methods and procedures for collecting, compiling, processing, storage, and dissemination of statistical data.
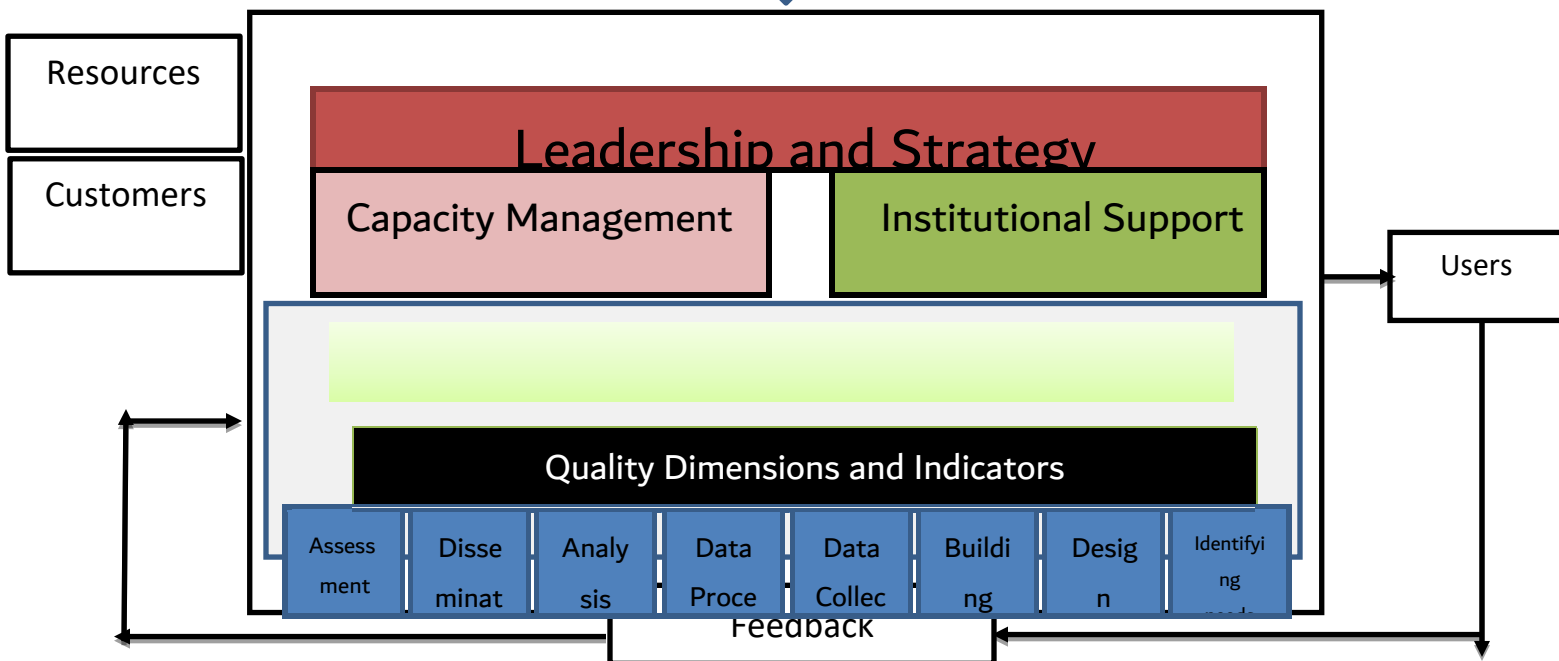
3.2.1 Ensuring Professional Independence

Professional independence is defined as the process of preparing and disseminating statistical data without any form of pressure on the form of results or choice of statistical means and methodologies. As all statistical bodies seek to ensure professional independence in order to reach the highest trust possible, among its users of various levels and categories, of official statistics, which requires the following:

1. Professional selection of data sources, methodologies, and procedures.
2. Adoption of the international scientific principles and standards in statistical practices.
3. Official statistics should not be adapted to serve personal or profit purposes.
4. The Statistical Center maintains the right to respond to any misuse or misinterpretation of statistics.
5. Full commitment to the principles and ethics of scientific research and statistical work.

3.2.2 Ensuring Impartiality and Objectivity

In order to achieve impartiality and objectivity, statistical centers must do the following:

1. Adoption of statistical policies and practices on a basis of impartiality.
2. Taking statistical considerations into account when selecting sources.
3. Taking only statistical considerations into account when taking all decisions regarding dissemination.
4. Adoption of all statistical policies and practices that ensure that all data users are informed of the statistical data as well as terms of collection and processing.

3.2.3 Ensuring Transparency

Ensuring and achieving transparency in statistical centers is done through:

1. Proper and accurate interpretation of data according to the approved standards.
2. Displaying, dissemination, and making available all information on data sources.
3. Displaying, dissemination, and making available all the statistical methods and procedures used in the statistical process.
4. Announcing changes in statistical work methodologies before announcing the results of statistics that depended on new methodologies.
5. Provision of the methodologies applied and approved for various data users.
6. Provision and making available the metadata for all statistical data and indicators.

3.2.4 Ensuring Confidentiality of Statistics

It must be noted that Law No. 23 of 2006 on the establishment of the Dubai Statistics Center stressed the confidentiality of the individual data. Article 7 of this Law stipulates the confidentiality of the information and data collected through poll studies and surveys, and that they shall be used only for statistical purposes. Law No. 28 of 2015 on the Dubai Statistics Centre stresses, in Article 9, the confidentiality of statistical data: "Personal Data and information obtained through any Statistics, census, or Poll Study are deemed confidential and may only be disclosed or divulged to any individual or entity by the DSC with a written authorization of its owner or upon the request of the competent judicial entities. Such data and information may not be disseminated for other than statistical purposes…" So, the following must be taken into account:

1. Working on raising awareness of all personnel in the production of official statistics in advance of the importance of maintaining the confidentiality of the data as well as introducing them to the penalties for disclosure of such data.

2. Maintaining individual data in a safe way and identifying the powers of the individuals authorized to view them.

3. No body, of any type, shall be supplied with individual data whether that data is from poll studies or surveys or from the databases of various bodies that supply data.

4. Permanent and constant declaration to respondents to maintain the privacy and confidentiality of individual data.

3.2.5 Ensuring Commitment to Quality

DSC is committed, both systematically and practically, to ensure quality according to the Quality and Environment Manual issued by DSC, which is mentioned earlier. DSC seeks to apply all the standards and methodologies contained in this document to achieve quality of processes and outputs in line with customers' needs. This can be achieved through taking the following into account:

1. Management of statistical operations effectively.

2. The completion of all stages of the production of the statistical figure at high professionalism.

3. Promoting a culture of review and audit of statistics regularly and continuously.

4. Adoption of approved and generally-accepted statistical methodologies.

5. Taking all necessary measures to ensure quality of statistics in accordance with internationally-recognized regulations and standards.

3.2.6   Ensuring Adequacy of Resources

Planning of statistical operations should take into account the optimal use of resources available through comparison between cost and quality. The process of collection of official statistics from its various sources, whether from poll studies, statistical surveys, or from various bodies' administrative records and databases, requires a variety of financial and human resources according to the nature of each statistical process. To ensure adequacy of resources, the following must be taken into account:

1. Application of an optimal model for project management.
2. Making sure of the application of the operations scheme in a way that ensures optimal use of resources.
3. Preparation of an operational action plan that show the resources, tasks, and time period.
4. Provision of adequate resources in a manner consistent with the quality and type of targeted statistical data.

3.3 Management of Statistical Processes

These are part of the data quality assurance guidelines recommended by UNSC, which refers to all the means, methods, and organizational procedures used in the implementation of a statistical process, at all levels, to achieve its desired goals, which are provision of accurate data required to interpret a phenomenon at hand or address a problem in question. The guidelines classified statistical processes management into four elements, namely:

3.3.1   Ensuring Integrity of Methodology

This means checking that the methodology used to carry out a statistical process is a sound methodology that includes means, methods, classifications, definitions, and practical procedures that are generally accepted, both technically and scientifically, to achieve the objectives of that process which are provision of accurate data needed to interpret a phenomenon or a problem in question. The general model of the charter of quality assurance includes all the requirements that guarantee the integrity of the methodology.

3.3.2   Ensuring Cost Effectiveness

This refers to checking that effective managerial, administrative, and technical procedures and methods that enable the optimal use of resources by achieving the highest use of data with a high degree of accuracy and the lower cost possible through increased response rate and decreased rate of errors. The general model of the charter of quality assurance includes all the requirements that achieve cost effectiveness.

3.3.3   Ensuring the Integrity of Implementation

This is done through using practical methods and procedures that enable proper implementation of the statistical process such as provision of sound statistical frameworks and trained personnel, clarity of the questions contained in the form, conducting a pre-experiment to test the questions in the form, identifying the productivity of the staff, design and test of a representing sample, and providing an appropriate information program to define the statistical process and its objectives. The general model of the charter of quality assurance includes all the statistical operation safety implementation requirements.

3.3.4   Management of the Burden on the Respondent

This refers to decreasing the burden on the respondent as possible through a questionnaire design that achieves the objectives of the study, reduces the time it takes to obtain data in a way that does not affect the quality of data, and provides metadata that enables the respondent to deal with the questionnaire easily. In addition, choosing the right time for the visit and completing it in the shortest time possible in case of field surveys, providing an information program for the promotion of the importance and objectives of the statistical process, good selection of survey staff who are able to convince the respondent to participate, and other procedures all reduce, directly or indirectly, the burden on respondents. The use of appropriate electronic means and adaptation of modern techniques used in statistical work can contribute to reducing those burdens. The general model of the charter of quality assurance includes all the requirements that help reduce the burden on the respondent.

3.4 Management of Statistical Outputs

3.4.1   Ensuring Significance

The significance of the statistical outputs is closely related to the demand for data of any field or issue that is related to reality and society. Furthermore, the statistical outputs meeting the needs of users and the extent of attention to them are directly reflected on how far these outputs are significant to users. Consequently, it is necessary to work on the following:

1. Developing processes for consulting users, monitoring how far the statistics available are significant and useful in meeting their needs, and considering their needs and priorities of the statistical data.

2. Meeting priority needs received by the customer service.

3. Monitoring and following up the users' satisfaction on a regular basis.

3.4.2   Ensuring Accuracy and Objectivity

This standard means the accuracy of the data in terms of description of the phenomenon that is designed to measure and explain its characteristics, and to avoid errors in estimating it, which is usually biased as a result of the sampling errors, inclusiveness, representation, and others, in a way that makes the statistical outputs of great precision and high reliability. This can be achieved through the following:

1. Assessment of sources data and checking the validity of intermediate results and the statistical outputs on a regular basis.
2. Systematic measurement and documentation of sampling errors and other errors in accordance with the approved standards.
3. The response, inclusiveness, and errors and their causes are analyzed on a regular basis in order to improve the statistical processes.

3.4.3   Ensuring Timeliness

This standard means that statistical data loses its credibility and significance if they exceed the reference date to be adopted in measuring a certain service. Timeliness here means the ability to disseminate statistical data and information within the specified time frame. This is done through the following:

1. Ensuring timely dissemination
2. Taking into account the users requirements as much as possible concerning the periodicity of disseminating statistics.
3. Dissemination according to the schedule announced in advance.
4. The possibility of disseminating the preliminary overall results in case they were accurate.

3.4.4   Ensuring Data Accessibility

This is the process of dissemination of statistical data in a clear and understandable manner, and in suitable and convenient way, as well as making them accessible, since users' accessibility to statistical data is a significant factor in determining the quality of the data. This is done through the following:

1. Multiple information and communication means used in dissemination.
2. Easy access to data for different users.
3. Providing data at the best methods and practices using the latest technology.
4. Explaining the methodology used in the production of data to users.

5. Continuous communication with users in the event of any changes in the statistical data.

6. Provision and documentation of the relevant statistical methodologies, classifications, and standards.

7. Dissemination of statistical data electronically for easy access.

8. Allowing access to detailed data for research purposes, and making this subject to the applicable agreements and partnerships.

9. Documentation of metadata according to the standard metadata systems and making them available to users.

3.4.5   Ensuring Consistency

This refers to the process of data consistency internally among the different study variables, and comparability over time or with the other Emirates within the State. To ensure data internal consistency, the following must be taken into account:

1. Coherence and consistency of statistics.

2. Comparability over a specified period of time.

3. Compilation of statistics on the basis of common and consolidated standards regarding the scope of the units, definitions, and classifications used in the different surveys.

4. Consistency when compared with data from other sources.

3.4.6   Preparation of Metadata

Metadata means data that describes data in general so as to give users information about the methodology used, reference, time, and the legal authority according to which the institution that produces statistical work works, and the most significant information on concepts, measurement bases, and method of data availability and periodicity. The degree of transparency and professionalism of the statistical body is determined by how much it produces or provides metadata or statistical indicators, which are primarily based on the following:

1. Availability of metadata for all statistical outputs.

2. Application of a standard model for all statistical outputs.

3. Permanent and continuous ability to update metadata.

4. Ability to build a comprehensive and integrated system for metadata.

4. Quality Assessment

The quality report supports the assessment process and is the starting point for quality improvements as quality reporting in accordance with clear standards and principles is a key part of the quality management framework that is usually based on the principles and elements contained in the quality framework. However, its major part often revolves around the statistical product, but it also contains an addressing of the statistical process and primarily focuses on the statistical output, which is the final product for users.

The quality report is a summary document describing the survey or administrative data in a statistical product-oriented way. It is structured into 5 sections, respectively, in reference to the quality standards: relevance, accuracy, timeliness, accessibility, clarity, comparability, and consistency. Generally speaking, each part contains a summary of the statistical properties of the product that are associated with the element of quality and its proper quantitative standards. In addition, introductory data is useful for interpreting indicators. Also, the part of accuracy is usually the most complicated part with the richest content, i.e. the context of methodology, sampling and non-sampling errors, etc.

In order to build a comprehensive assessment system for quality of statistical data in DSC, three main dimensions must be included:

1. **Stage of comprehensive assessment of statistical product:** This stage explains in detail all quality aspects, standards, and technical indicators.
2. **Stage of self assessment:** In this stage, each individual in charge of statistical output documents the product release stages beginning from planning to dissemination and improvement opportunities in a way that reflects the established dimensions of institutional quality in DSC.
3. **Stage of documenting the statistical product quality:** In this stage, each statistical output is approved to have a high statistical quality according to the product quality assessment report in order to achieve the highest degree of transparency and credibility.

5. Framework of Data Quality and Other Quality Frameworks

Since quality is a comprehensive framework governing all aspects of main and assistive works and activities conducted in DSC, the statistical data quality framework, and its principles and concepts, is in line with the quality and environment management system in place in DSC. This framework came from the standpoint of the quality policy adopted by DSC with a view to achieving its mission and vision to embody the institutional quality values and standards in order to timely provide the best statistical services and outputs for data users.

Appendices

Appendix "1" Summary of the General Framework of the Charter

The following table summarizes the General Framework of the Charter of Quality of Statistical Data, including the dimensions, elements, and indicators of data quality assessment approved in Dubai.

Summary of the General Model of the Charter of Quality Assurance

Mainstreams	Elements	Indicators
Context of Quality	-	-
Concepts and Frameworks of Quality	-	-
Guidelines for Quality Assurance: **Management of the Statistical System**	Coordination of the Statistical System	1. Permanent coordination with all local producers of official statistics and statistical bodies at the State level. 2. Consistency and efficiency in the statistical system locally and nationally. 3. Improvement of the official statistics systems in the Emirate through building strategic partnerships in the field of statistics.
	Management of Relationships with Users and Producers of Data	1. Identifying the requirements and needs of all data users, at all levels and categories, and meeting them. 2. Permanent and continuous communication with all data users and considering their opinions in order to ensure the provision of needs-relevant statistics. 3. Identifying the basic statistics that reflect the demographic, social, and economic reality. 4. Identifying the statistical calendar in consultation with data users in order to identify priorities in advance.
	Management of Statistical Standards	1. Detailed documentation of methodologies and work mechanisms used in statistical work. 2. Design of key processes in the field of statistical work.

		3. Building and preparing metadata for all statistical data and indicators.
		4. Identifying the statistical work mechanisms in order to ensure the sustainability of gained experiences.
		5. Creation of a knowledge department that ensures access to implicit and explicit knowledge in the field of statistical work.
		6. Creation of an organizational unit for standards and methodologies for update of the methodologies, standards, and mechanisms of statistical work.
Guidelines for Quality Assurance Institutional Environment	Ensuring Professional Independence	1. Professional selection and identification of data sources, methodologies, and procedures. 2. Adoption of the international scientific principles and standards in statistical practices. 3. Official statistics should not be adapted to serve personal or profit purposes. 4. Number of cases of misuse or misinterpretation of statistics. 5. Identifying the principles and ethics of scientific research and statistical work.
	Ensuring Impartiality and Objectivity	1. Identifying statistical policies and practices on a basis of impartiality. 2. Identifying the statistical principles and standards when selecting sources. 3. Identifying the statistical standards only when taking all decisions regarding dissemination. 4. Identifying the statistical policies and practices that ensure that all data users are informed of the statistical data terms of collection, processing, and dissemination.
	Ensuring Transparency	1. Proper and accurate interpretation of data according to the approved standards. 2. Displaying, dissemination, and making available all information on data sources.

		3. Displaying, dissemination, and making available all the statistical methods and procedures used in the statistical process.
		4. Announcing changes in statistical work methodologies before announcing the results of statistics that depended on new methodologies.
		5. Provision of the methodologies applied and approved for various data users.
		6. Provision and making available the metadata for all statistical data and indicators.
	Ensuring Confidentiality of Statistics	1. Working on raising awareness of all personnel in the production of official statistics in advance of the importance of maintaining the confidentiality of the data as well as introducing them to the penalties for disclosure of such data.
		2. Maintaining the individual data in a safe way and identifying the powers of the individuals authorized to view them.
		3. No body, of any type, shall be supplied with individual data whether that data is from poll studies or surveys or from the databases of various bodies that supply data.
		4. Permanent and constant declaration to respondents to maintain the privacy and confidentiality of individual data.
	Ensuring Commitment to Quality	1. The completion of all stages of the production of the statistical figure at high professionalism.
		2. Management of statistical operations effectively.
		3. Promoting a culture of review and audit of statistics regularly and continuously.
		4. Adoption of approved and generally-accepted statistical methodologies.
		5. Taking all necessary measures to ensure quality of statistics in accordance with internationally-recognized regulations and standards.

	Ensuring Adequacy of Resources	1. Quality and type of statistical data. 2. Timing. 3. Costs. 4. Burden on respondents.
Guidelines for Quality Assurance Management of Statistical Processes	Ensuring the Integrity of Methodology	1. Identifying objectives 2. Compatibility of the concepts and definitions used with the international technical standards and recommendations. 3. Compatibility of the manuals and classifications used with the international manuals and classifications. 4. Provision of recent and sound statistical frameworks. 5. Suitable size of sample so as to be representative of the study community. 6. Taking into account the needs of data users. 7. Determining the statistical process human, time, and financial requirements accurately. 8. Determining the scope of data collection. 9. Determining the working method. 10. Determining reference period for data. 11. Provision of the legal evidence.
	Ensuring cost effectiveness	1. Adopting the methods that reduce cost such as automating of data collection and mass transporting of staff in the statistical process. 2. Pre-coding of closed questions. 3. Determining clear tasks for staff. 4. Developing performance standards for staff in the statistical process. 5. Taking the appropriate procedures to raise the rate of response in case of statistical poll studies and surveys. 6. Use of an effective method for field work. 7. Developing of a well-established time plan for conducting the statistical process to ensure no

		time is wasted.
		8. Balance between the human, financial, and time budget.
		9. A flexible and effective system for disbursement.
	Ensuring Integrity of Implementation	1. Provision of modern statistical frameworks.
		2. Selection of human resources according to appropriate and transparent standards.
		3. Proper training for staff.
		4. Provision of an attractive form of clear and unambiguous questions that includes an explanation of the objectives of the statistical process.
		5. The form must achieve the objectives survey or census.
		6. Conducting a pre-experiment to test the questions of the form and the time needed to fill it out.
		7. Developing a clear mechanism for implementation of the statistical process.
		8. Monitoring and field audit.
		9. Conducting a post-test to check the comprehensiveness and accuracy of data.
		10. Database auditing in accordance with generally accepted auditing rules.
		11. Provision of an adequate publicity and information program.
		12. Conclusion of partnership agreements with the bodies that have administrative data to ensure
	Management of the Burden on the Respondent	1. Adopting the methods that help ease the burden on the respondent.
		2. Clarity of the form questions.
		3. Notifying the respondent that s/he would be interested in responding.
		4. Ensuring confidentiality of data.
		5. Community commitment to response to official

		statistics.
		6. Provision of statistical services to the community.
		7. Training of researchers on methods of cooperation with respondents and the art of persuasion.
		8. Educating respondents of the importance of the statistical process.
		9. Electronic linkage with various data sources in order to access their databases and process them in a way that serves statistical purposes.
Guidelines for Quality Assurance Management of Statistical Outputs	Ensuring Significance	1. Developing processes for consulting users, monitoring how far the statistics available are significant and useful in meeting their needs, and considering their needs and priorities of the statistical data.
		2. Meeting priority needs received by the customer service.
		3. Monitoring and following up the users' satisfaction on a regular basis.
	Ensuring Accuracy and Reliability	1. Assessment of sources data and checking the validity of intermediate results and the statistical outputs on a regular basis.
		2. Systematic measurement and documentation of sampling errors and other errors in accordance with the approved standards.
		3. Audits are analyzed regularly in order to improve the statistical processes.
	Ensuring Timeliness	1. Ensuring Timely Dissemination
		2. Taking into account the users requirements as much as possible concerning the periodicity of disseminating statistics.
		3. Dissemination according to the schedule announced in advance.
		4. The possibility of disseminating the preliminary overall results in case they were accurate.

	Ensuring Data Accessibility	1. Rate of the information means used in dissemination. 2. Rate of the means used in dissemination. 3. Easy access to data. 4. Providing data at the best methods and practices using the latest technology. 5. Provision of assistance to users. 6. Explaining the methodology used in the production of data to users. 7. Clarifying that the data are preliminary or final. 8. Explaining to users in case of change of statistical data. 9. In case data are preliminary, users will be notified about the date of issuing the final data. 10. Provision and archiving of relevant statistics. 11. Spreading the use of modern technology to obtain statistical data instead of the traditional printed copies. 13. Allowing access to detailed data for research purposes, and making this subject to the applicable agreements and partnerships. 14. Documentation of metadata according to the standard metadata systems.
	Ensuring consistency and comparability	1. Coherence and consistency of statistics. 2. Comparability over a reasonable period of time. 3. Compilation of statistics on the basis of common and consolidated standards regarding the scope of the units, definitions, and classifications used in the different surveys. 4. Consistency when compared with data from other sources.

	Metadata	1. Is metadata about the statistical product available? 2. Does it follow a consolidated model for all statistical outputs? 3. Does metadata get updated consistently?
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Quality Assessment	-	-
Framework of Data Quality and Other Quality Frameworks:	–	-

Appendix "2": Practices Correspondence in Quality Dimensions

Table of comparison of dimensions of quality of various international bodies with the DSC's general framework for the quality of the statistical data

Body / Dimensions of Quality	OECD	ES	ECB	IMF	FAO	UNESCO	UNECE	DSC
Ensuring Significance	√	√			√	√	√	√
Ensuring Accuracy and Reliability	√	√	√	√	√	√	√	√
Ensuring credibility	√	√						√
Ensuring Timeliness	√	√	√	√	√		√	√
Ensuring Data Accessibility	√	√		√	√		√	√
Comparability		√			√		√	√
Ensuring consistence, cohesion, and coherence	√	√	√		√	√		√
Ensuring the Integrity of Methodology			√	√				√
Management of the Burden on the Respondent		√		√				√
Ensuring Adequacy of Resources		√		√				√
Ensuring security and confidentiality of data		√		√				√
Ensuring impartiality and transparency		√		√				√
Metadata		√		√	√	√	√	√

Appendix "3": Table of correspondence between the dimensions of quality and the Generic Statistical Business Process Model (GSBPM) adopted in DSC

GSBPM Stages / Dimensions of Quality	Identifying needs	Design	Building	Data Collection	Data Processing	Analysis	Dissemination	Assessment
Ensuring Significance	x	x			x		x	
Ensuring Accuracy and Reliability	x	x	x	x	x	x		
Ensuring credibility		x	x	x	x	x		
Ensuring Timeliness		x		x	x	x	x	
Ensuring Dat							x	
Comparability		x			x	x		
Ensuring consistency, cohesion, and coherence		x			x	x	x	
Ensuring the Integrity of Methodology		x	x	x	x	x		x
Management of the Burden on the Respondent		x	x	x				
Ensuring Adequacy of Resources	x	x	x	x				
Ensuring security and confidentiality of data	x	x		x				
Ensuring impartiality and transparency							x	**Quality of Statistical Outputs**
Metadata		x	x			x	x	

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