SDMX Innovation: Enhancing Data's Value

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Referring to the proposal of
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Background

**MDG (2010-2015)**
- statXchange version 1.0
- The UNSD-DFID Project for MDGs exchange
- Implementing SDMX in statXchange version 2.0

**SDG (2015-2030)**
- Implementing SDMX with our new platform
- The KSTA-9646 Data for Development Phase II Project for SDGs exchange

**Timeline:**
- 2010: statXchange version 1.0
- 2013: The UNSD-DFID Project for MDGs exchange
- 2014: Implementing SDMX in statXchange version 2.0
- 2020: Implementing SDMX with our new platform
- 2022: The KSTA-9646 Data for Development Phase II Project for SDGs exchange
- 2023:
The National Statistical Office has established the Statistics Sharing Hub platform to efficiently exchange and share international indicators, national strategic data, and official statistics in accordance with SDMX standards, in alignment with the national strategic goals.
Experience in working on SDMX

The government digital standard of guidelines for public sector data catalog (under 3-1/2565) and the government digital standard on guidelines for public sector data registration (under 3-2/2565) Statistical Data and Metadata eXchange : SDMX

Service ➤ https://stathub.nso.go.th/

User can select dimensions as needed
- Table
- Chart
- Download
- Developer API
- Share

https://sdmx.nso.go.th
SDMX Innovation in TNSO

Enhancing the Utilization of Data from the Statistics Sharing Hub

1. Creating an Interactive Dashboard with Microsoft Power BI
2. Chatbot on https://directory.gdcatalog.go.th
Data Visualization (Using MS Power BI)

- We learned how to connect data and leverage it from online social media.
- We share and collaborate to further enhance the utilization with our colleagues.
- We collaborate in creating data visualization both at the central level and in the statistical offices of 76 provinces.

TNSO sets **KPIs** for the statistical offices of 76 provinces to create dashboards by pulling data from the Statistics Sharing Hub (**SDMX APIs**) and the Government Data Catalog (**CKAN APIs**).

The data visualization created must be able to align with both the national and regional-level strategies.
Examples of our results

SDMX APIs enable quick, accurate, and flexible access to data for use in various applications and services. They also facilitate data processing, automatic updates, and collaboration for efficient data utilization.

Data Visualization (Using MS Power BI)

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All of our data visualizations have been published on the Government Data catalog and the website of the National Statistical Office.

example: https://www.nso.go.th/nsoweb/nso/interactive_view/7J
The Thai NSO aims to maximize public access to data. To achieve this, we have taken the following steps:

1. We have integrated a chatbot that retrieves data from the Statistics Sharing Hub and publishes it on the directory.gdcatalog.go.th website.
2. This website operates within the framework of the government's mobile application.
3. We initiated the initial phases by retrieving population and migration datasets from the Statistics Sharing Hub.
Challenges

The effort and hard work
The process of collecting and managing statistical data from multiple sources and structuring it according to SDMX standards is time-consuming and requires a significant amount of human resources as well as training and assimilation by newcomers.

Adapting to Rapid Tech Advances and User Data Demands
Managing evolving technology and meeting user data demands is a continual challenge, and staying synchronized with technological advancements is crucial.
The Future work

We will enhance systems and tools to efficiently gather and format statistical data from various government agencies into structured, SDMX-compliant data, employing these four systems.

**Data Conversion Service**
Supporting government agencies in transforming unstructured data into structured data through a central service.

**Graphical Data Display Service**
Enabling government agencies to present data in their preferred format for visualization.

**System for Statistical Compilation**
Collecting statistics from primary data sources to create standardized structured datasets within the National Statistical Office’s Statistics Sharing Hub.

**Robotic Process Automation (RPA) System**
Utilizing RPA tools for automated statistical data collection from public sector agencies.
Meet Our Best Team

Project Manager

Mr. Songpon Maisalee

SDMX Team

Government Strategic Information Center
Thailand National Statistical Office
THANK YOU

Visit Our Website: https://stathub.nso.go.th