

Towards Paperless Surveys: Digitisation of Producer Price Surveys

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Introduction

The Singapore Department of Statistics (DOS) compiles the producer and international trade price indices¹. The indices are used to deflate national accounts for estimating real growth and productivity of the economy, and to provide trends in prices for various industries.

In line with the government's push towards being a Smart Nation, the data collection process has been digitised through the use of the Producer Price Indices Online E-Survey System (POES)². The high adoption rate among respondents of paperless modes in their survey submissions contribute to significant streamlining of work processes.

Improving the Data Collection Process

Before the POES was implemented, data on prices were collected from establishments via monthly surveys, conducted primarily through postal survey. The survey questionnaires were mailed to respondents, who would then mail or fax the completed forms to DOS for verification and manual data entry. This entailed substantial resources. As respondents become more tech-savvy, there is a concomitant rise in demand for digital submission modes, such as through electronic mail (e-mail) or internet submission, which provide convenience and flexibility.

Recognising this demand, DOS undertook a review to digitise the data collection process for producer and international trade prices which culminated in the launch of the POES in 2016 (see Image 1).

The POES allows survey respondents to make their survey submissions online using any internet-enabled device. Over at DOS's end, the POES also supports the data collection process. The survey returns submitted by respondents over the internet are directly transmitted into the database. For a small number of

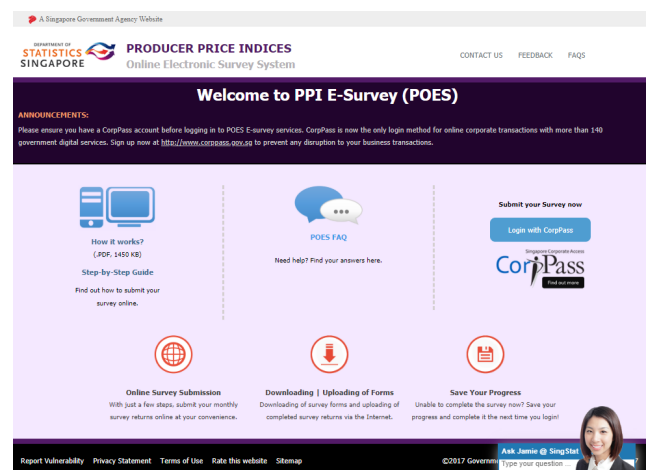
softcopy survey returns received from respondents via email, the POES is also able to automatically capture data in specific cells of the completed survey returns uploaded by DOS's staff backend. The POES further automates operational processes by allowing the generation and despatch of survey forms, tracking of responses, and validation of returns for possible errors.

Before making the POES mode of submission available for all respondents, a pilot E-run was conducted to reach out to a select group of respondents of each price survey. Feedback received on the POES system such as suggestions to enhance the processes of submitting the survey returns online, was used to finetune and improve system usability and user experience before making it available to the rest of the respondents from the next survey period.

Benefits of POES

The POES offers respondents a secure and convenient mode of prices survey submission. Survey returns can be submitted online seamlessly using CorpPass, which is also used to transact with other e-services provided by the government. This reduces the need for respondents to maintain multiple user identities

IMAGE 1
SCREENSHOT OF POES LANDING PAGE



- 1 Namely the Singapore Manufactured Products Price Index; Domestic Supply Price Index; Import Price Index; and the Export Price Index. The latest monthly reports and historical data are available on the SingStat Website at www.singstat.gov.sg/ppi and www.singstat.gov.sg/tablebuilder respectively.
- 2 Respondents of the price surveys provide their returns online through POES at www.esurvey.singstat.gov.sg/poes.

and passwords. A secure protocol for communication over the internet is in place for the POES, which uses both password and file transfer encryption to protect the privacy and integrity of the exchanged information.

The POES allows survey returns to be saved even if they are partially completed, so that respondents could finish it up at a later time. It also allows downloading of the completed survey forms. Interactive elements are enabled in the online forms, with buttons to toggle between products that require prices to be entered. Verification checks are also in place to prompt respondents on missing fields and highlight possible incorrect entries. In addition to submitting survey returns, respondents can view their past survey submissions and manage their contact information.

Respondents can also choose to provide their survey returns through e-mail submissions. The password-protected survey forms are sent to respondents for completion and return to DOS.

Paperless submission modes, either through internet or e-mail, provide greater convenience for respondents and improves operational efficiency for DOS. Consequently, the survey returns are timelier, and the quality of the compiled indices are improved (see Chart 1).

Challenges and Future Plans

DOS envisions a fully paperless data collection process for producer price surveys, with all survey respondents

using POES as the primary survey submission mode. In the push towards digitising the data collection processes, DOS proactively takes action to address several challenges.

A calibrated approach has to be taken to reach out to respondents through e-mails or phone calls, to get them onboard and to facilitate their transition from paper to paperless modes. There remains a number of respondents who prefer receiving and submitting their survey returns via hardcopy or cite that they need more time before switching over to using paperless modes. DOS has been providing assistance to help them with the transition.

For respondents who have transitioned to paperless modes, some of them opted for e-mail submissions, citing issues with obtaining CorpPass accounts, or the inconvenience of submitting surveys for multiple establishments. DOS actively assists respondents to obtain their CorpPass accounts and encourages the use of internet submission, which will bring greater convenience to the respondents in the long run.

Feedback from respondents are regularly reviewed to implement enhancements for improving the user experience of respondents in using the POES.

To further digitise the data collection process, plans are underway to integrate the data processing and compilation functions with the data collection function for a seamless process. Stay tuned for an improved POES!

CHART 1 IMPROVEMENTS FROM USAGE OF POES

