A Concept Paper on
The Web-enabled Questionnaire of the
Quarterly Survey of Philippine Business and Industry[1]

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I. Introduction

The present delivery and collection of questionnaires for establishments-based surveys of the National Statistics Office (NSO), in particular for the Quarterly Survey of Philippine Business and Industry (QSPBI), is done by NSO field staff . The process is highly labor-intensive. Over the years, however, the low level of response rate (40 percent to 60 percent) during the submissions of preliminary quarterly results to the National Statistical and Coordination Board (NSCB) continue to beset the survey.

Considering that the QSPBI is a designated statistics and that its results are critical inputs in the estimation of the national accounts, there is a need to improve the response rates as well as the easy validation of results. Although the physical presence of an NSO representative is likely to elicit higher levels of cooperation and response, a quicker method of questionnaire retrieval and data collection is demanded by users.

The concern is articulated in the NSO Five-Year Development Plan 2004 – 2008 where it addresses the problem of improving the timeliness and quality of industry statistics by increasing the response rate to at least 80 percent for QSPBI, 45 days after the reference quarter.

Among the wide range of methods available to the NSO which may contribute to increasing the response rate is through electronic means. This was among the recommendations of the project "*Improving the Annual Survey of Philippine Business and Industry of the National Statistics Office*" under the Philippines- Australia Governance Facility (PAGF) as completed in 2002. The options ranged from the use of the electronic questionnaire on diskette to the use of an NSO website from which establishments could download the questionnaire to their own computers and complete the questionnaire electronically, and upload the completed questionnaire back to the website.

The use of e-mail as the sending and retrieving medium for the QSPBI questionnaires was also recommended by the National Statistical Coordination Board (NSCB) in the approval given for the conduct of the

survey as part of its clearance process. Thus, the developmental activities on the electronic QSPBI questionnaire (e-QSPBI) can no longer be delayed . It started in the third quarter of 2005 and had transformed into the web-enabled QSPBI questionnaire system by July 2006.

The viability of using automatic data collection is being explored jointly by the Statistical Sampling and Operations Division (SSOD) of the Industry and Trade Statistics Department and the Information Technology Systems Research Division (ITSRD) of the Information Resources Department.

II. Objectives

The main objective of the web-enabled QSPBI questionnaire is to improve the quality of the QSPBI data. The specific objectives are:

1. To improve the response rate of the survey

   The project adapts the FYDP objective of increasing the response rate to at least 80 percent for QSPBI 45 days after the reference quarter.

   The use of an NSO website from which establishments could fill-out and submit completed questionnaires on a voluntary basis and in their own time, is encouraged. The availability of computers coupled with the advances in information technology will ensure the fast transfer of data from the sample establishments to the NSO through the identified contact persons. Minimal pressure on the establishment in terms of reminder e-mail messages will be sent to them as the deadline approaches.

2. To reduce cost of field operation (i.e. Cost of distribution and callbacks on collection of the accomplished questionnaires) and data encoding

   As the questionnaires will no longer be personally distributed to the respondents of the web-enabled QSPBI, except on request, distribution cost for these samples will practically be zero. Personal callbacks, however, may still be resorted to - in cases where there are power outages, computers breakdown, problems with the service providers, and other causes beyond our control.

   The receipt and submission of data (minus the physical questionnaire) would also minimize time for data encoding.

For sample establishments unwilling to provide the QSPBI data through the internet, the traditional method of personal visit to distribute and collect the questionnaires will be continued.

3. To facilitate follow-up of problem reports.

Communication to the web-based respondents will be made easier, particularly when verifying reports for consistency and completeness. The internet will be used extensively for the purpose. The telephones and telefax machines will likewise be utilized for edit validation of submitted reports.

III. Expected Outcomes and Outputs

It is envisioned that the quality of QSPBI reports will improve in terms of timeliness and higher response rate. Resources that are currently being used for field operations and validation will be freed up for other purposes. In addition, revisions in the related systems, such as the List of Establishments and Monitoring and Tracking System will improve through the inclusion of additional information and real time updates.

The expected outputs are:

- A web-based QSPBI questionnaire system
- Estimates of reduction in cost and man-day for QSPBI
- Revisions in related systems
- Upgrades in the ICT facilities of PNSO.

IV. Strategies

To accomplish the objectives of the web-enabled QSPBI, the following strategies are being utilized :

1. Conduct of survey on the willingness of establishments to accomplish and submit the required QSPBI information through electronic data reporting.

In April 2006, in time for the first quarter round of the survey, all sample establishments (except MISSI respondents) were given an NSO Inquiry Form on the Web-based QSPBI. Letters were likewise sent to the Provincial Statistics Officers requesting the provincial staff to distribute the inquiry forms during the collection of the first quarter

2006 questionnaires. Accomplished inquiry forms were processed at SSOD.

About 42 percent of the samples responded to the inquiry with 44 percent willing to submit QSPBI data via the internet. The number comprised 18 percent (898) of the total samples of QSPBI. There was also a strong support from medium and large sized businesses for the use of the electronic form. More than three-fourths (77 percent) of willing responses to the inquiry were from the establishments employing 100 or more workers. The narrative reports of the provincial offices for the first and second quarters of 2006 QSPBI affirmed this observation.

2. Construction of the frame for web-enabled QSPBI

The frame for the web-enabled QSPBI is a listing of all sample establishments in the 2006 QSPBI which signify willingness to accomplish the QSPBI questionnaires via the internet. It is limited to establishments with employment of 20 or more for all economic sectors, except those in Agriculture, Hunting and Forestry , and Fishery.

The list contains the following information:

> Name and address of establishment
> Establishment Control Number (ECN)
> Name of contact person
> Position or title of the contact person
> E-mail address of the contact person
> Establishment website
> Telephone/ telefax
> Main economic activity (MEA)
> Philippine Standard Industrial Classification (PSIC) code
> Tax Identification Number of establishment (TIN)
> Actual Employment (ATE)
> ATE size code
> Economic Organization (EO) code
> Legal Organization (LO) code
> Name and address of main office (if establishment is a branch or ancillary)

A total of 898 establishments will initially compose the list of possible respondents to the web-enabled QSPBI system.

3. Pilot test of the web-enabled QSPBI questionnaire system

The pilot test of the web-enabled QSPBI questionnaire system will be for the third and fourth quarters of 2006 QSPBI survey rounds. Operations for the third quarter will be from October till the end of December 2006 and for the fourth quarter survey, January to March 2007.

The pilot test will be pursued in parallel with the usual method of delivering and collecting survey data from those establishments which do not have access to the internet or are unwilling to provide QSPBI data through any electronic media.

The pilot test is critical because this will establish the viability of the web-based facility as an alternative mode of collecting QSPBI data from sample establishments.

For the third quarter operations, letters to the establishments are attached to the addressed questionnaires of all sample establishments, regardless of the signified willingness to submit via electronic reporting. For those pre-identified respondents to the web-enabled QSPBI questionnaire system, e-mail messages were sent in the fourth week of September 2006 informing them of the availability of the facility at the NSO website. A memorandum informing the Regional Directors and Provincial Statistics Officers of the availability of the web-enabled QSPBI was also included in the shipment of the addressed questionnaires for distribution by the field offices for the third quarter round.

Close monitoring of the receipts of data via the web-enabled facility shall be made. The central office will give feedback to the field offices on the status of the operations on a regular basis.

A reiteration of the availability of the web-based facility shall likewise be made through letters for all samples of the fourth quarter round. Willing establishments which responded to the third quarter survey will no longer be given the physical QSPBI questionnaires, except on request, but will be alerted via e-mail, of the start of the collection and submission of the fourth quarter 2006 QSPBI reports.

4. Evaluation of the pilot test and refinement of the system

The web-enabled QSPBI questionnaire system will be evaluated in terms of the security, operational and technical aspects. The security measures will be evaluated in terms of preservation of the confidentiality and access to the respondents' data. The system will be evaluated technically on the compatibility of the system with the main

QSPBI processing system. The accessibility feature of the QSPBI website will be tested using different browsers. Respondents will also be asked to give feedback on the adequacy of the procedures and instructions for data submission through the web.

Data retrieved from the normal or standard data entry version or web-version should be converted and integrated into the QSPBI main processing system. A feature for uploading the QSPBI web-submitted data onto the main QSPBI processing system is being developed. Cases of more than one respondent reporting for an establishment and multi-activity enterprises will be considered .Comments and suggestions from the respondent establishments will also be inputted to the refined system to be used for the 2007 quarter rounds.

A revised implementation plan shall be prepared as a result of the evaluation of the pilot test. In particular, solutions to unforeseen problems encountered during the pilot implementation will be incorporated into the revised system. The final report on the evaluation shall be prepared by the second quarter of 2007.

5. Maintenance of the System

For sustainability , the appropriate hardware and software to maintain the system shall be purchased .

A link with the Monitoring and Tracking System (MTS) at ITSD will be established to account for all submissions of reports via the web-based QSPBI. Improvements in the MLE (Maintenance of the List of Establishments) will take into account the requirements of the web-enabled QSPBI.

V.   Minimizing Possible Risks

Large and medium sized establishments are increasingly using ICT technology in the conduct of their business. However, not all establishments have computer facilities. Therefore, a dual system; i.e., web-based and traditional, may have to be maintained to

Of those who do have the facilities, not all are willing to submit questionnaires through the web. It would be well to study the possible objections of those establishments and implement the appropriate communication plan to elicit their cooperation.

In its full implementation, motivating the respondents to continue responding to the web-based survey needs to be built into the system as respondents may suffer respondent fatigue. While the establishments continue to supply the required information for the QSPBI, NSO needs to provide them with tokens or statistics in return for the data, which may be in the form of the results of the previous survey round as attachment to the email message thanking the respondent and reminding them of the next survey round. This is seen as a strategy to encourage prompt responses to the survey.