

The 2015 Tanzania Manufacturing Innovation Capability Survey (the 2015 Tanzania ICS)

The 2015 Tanzania Manufacturing Innovation Capability Survey (**the 2015 Tanzania ICS**) is a collaboration between the Tilburg University and the Enterprise Analysis Unit (DECEA) of the Development Economics Group of the World Bank. This is part of a wider project undertaken by the Tilburg University to study the innovative capability of manufacturing firms in nine countries selected from three regions- Ethiopia, Ghana, Kenya, Uganda and Tanzania from Africa; India and Bangladesh from South Asia; and Indonesia and Vietnam from East Asia and Pacific.

The 2015 Tanzania ICS aims at studying the innovative activities and innovative capabilities of manufacturing firms in Tanzania, by collecting firm-level data using a suitably designed questionnaire and following the DECEA's global methodology of survey design. This survey is a follow-up to and complements the 2013 Tanzania Innovation Follow-up Survey undertaken by the World Bank Group. The data can be linked to the 2013 Tanzania Innovation Follow-up Survey (and the 2013 Tanzania Enterprise Survey (ES)) using the "idstd" variable, enabling a richer analysis of the links between innovative capabilities, innovation and the performances of manufacturing firms in the country.

The **main objective** of the project is to collect firm-level data from manufacturing firms in the country to better understand:

- Sources of information and motivation for innovative activities by manufacturing firms;
- Key factors constraining innovative capability of the manufacturing firms;
- The ability of firms to locate, acquire and utilize knowledge for innovation.
- Access to foreign markets and firms' innovative capability.

The **Sampling Strategy** follows the standard ES global methodology of stratified random sampling¹. However, sample is drawn from manufacturing firms covered in the 2013 Tanzania Innovation Follow-up Survey (itself a sub-set of manufacturing firms covered in the 2013 Tanzania Enterprise Survey (ES))². Therefore, sample is stratified based on firm size and location, unlike the standard ES sampling methodology which includes sector as one of the three stratifying variables.

¹ Information on DECEA's global survey methodology can be found at the Unit's website (<http://www.enterprisesurveys.org/methodology>).

²Please see the World Bank's Enterprise Survey website (<http://www.enterprisesurveys.org/data/survey-datasets>) for detailed information on the 2013 Tanzania Innovation Follow-up survey and the 2013 Tanzania ES. In particular, the

The universe consists a total of 272 manufacturing firms, out of which 173 firms were randomly selected and interviewed. Firms are selected from all the regions covered in the 2013 Tanzania Innovation Follow-up Survey, and distributed across small (5 to 19 employees), medium (20 to 99 employees) and large (100+ employees) firms. Table-1 provides distribution of the realized sample by region and firm size. Fieldwork was a bit challenging in Tanzania due to firm refusal and ineligibilities, resulting in a slightly lower response rate compared to other countries in this round of data collection. Overall, about 65% of the contacted interviews turned into completed interviews.

Table 1: Realized Sample for the 2015 Tanzania ICS

	Small	Medium	Large	<i>Total</i>
Arusha	10	6	11	34
Dar Es Salaan	22	27	22	77
Mbeya	6	8	1	24
Mwanza	14	9	0	23
Zanzibar	32	10	1	42
Total	84	60	35	179

Two consultants were hired to implement the data collection. These two consultants were hired to conduct expansion of panel firm survey for the 2013 Tanzania Enterprise Survey and successfully completed the work. The fieldwork for the 2013 Tanzania main Enterprise Survey was conducted by TNS RMS Tanzania. However, we decided to go with these consultants for the ICS survey primary because the TNS RMS Tanzania was not available for this work. The fieldwork for the 2015 Tanzania ICS was conducted during the period January to March 2015.

The **Sampling weighs** for this survey are calculated from the 2013 Tanzania ES weights. More specifically, the 2013 Tanzania ES weights are multiplied by a cell-specific factor, which equals the proportion of total completed interview in the cell during the 2013 Tanzania ES to the completed interviews in the corresponding cell in the 2015 Tanzania ICS.

implementation reports of the respective surveys contain useful information on the design and implementation of the surveys. Access to the raw data and the implementation reports requires having a log-in account.