

The 2016 Tanzania Technology Transfer (TT) Survey

1. Introduction

The Technology Transfer survey was administered by Tanzania's National Bureau of Statistics (NBS) in conjunction with their Annual Survey of Industrial Production (ASIP) in 2016. The survey was administered to plant managers and was designed to elicit information about (i) formal links between foreign and domestic firms; (ii) the mechanisms by which knowledge is transferred and (iii) the benefits obtained from foreign firms. This report outlines and describes basic information about the data that may be helpful for users.

2. Survey Methods & Sampling Design

The Government of the United Republic of Tanzania through National Bureau of Statistics (NBS) in collaboration with the Ministry of Industry, Trade and Investment (MITI) conducted the Annual Survey of Industrial Production (ASIP) for reference year 2016. The Technology Transfer Survey was administered as an additional module in the 2016 ASIP; as such, the survey methodology and data collection was managed by NBS and tied directly to the ASIP.

The 2016 Annual survey of Industrial Production used the International Standard Industrial Classification of All Industrial Activities (ISIC) Revision 4 to capture all economic activities under study. The ASIP included establishments that were active in 2015 and engaged in any of the following activities; Mining and quarrying, manufacturing, electricity, gas, steam and air conditioning supply, and water supply, sewerage, waste management and remediation activities. Manufacturing includes physical or chemical transformation of materials, substances, or components into new products. The materials, substances, or components transformed are raw materials that are products of agriculture, forestry, fishing, mining or quarrying as well as products of other manufacturing activities. Substantial alteration, renovation or reconstruction of goods is generally considered to be manufacturing.

The Survey covered all establishments which engaged 10 persons or more (10+). The statistical unit used in the ASIP is an establishment, which is defined as an economic unit, under a single ownership or control, engaging one or predominantly one kind of economic activity at a single physical location, for example; an individual firm, mining, factory or workshop. However, due to record keeping practices, it was not always possible to strictly follow the definition of an establishment as stated above. In some cases, the restrictions especially on location were relaxed. Because the ASIP is intended to be a census of all establishments engaging 10 persons or more, there are no weights in the data.

The survey involved establishments that were active in 2016, that is, the information requested for and supplied was based on financial year covering January to December 2016. Those establishments that could not supply data according to the stated reference period were advised to supply data according to their financial years that covered larger part of the reference 2016 calendar year.

The data contain variables identifying the date of survey delivery, collection, and completion. Users can refer to the NBS website for additional information on the 2016 ASIP survey methods and data collection. The Statistical Report for the Annual Survey of Industrial Production was released by NBS in October 2018 and is available there.¹ Inquiries about additional information on data collection methods or access to the ASIP dataset should be directed to the NBS Department of Industrial and Construction Statistics.

3. Data

The Technology Transfer survey is organized into 6 sections. The first section asks for respondent details (RD). The second section asks about general information (GI) ownership and firm location. Section 3, labeled horizontal linkages (HL), asks questions of firms that make and sell similar products as foreign firms. Section 4 asks about vertical linkages (VL) and is designed to determine the extent of customer and supplier linkages between foreign and domestic firms. Section 5 asks questions about technology and innovation (TI) and the sixth and final section asks questions about labor and training (LT).

All variables are named using the two-letter abbreviation of each section; variable names correspond directly to the question numbers in the questionnaire. Variables with identifying information have been removed to ensure anonymization; these include respondent name (RD1), respondent phone number (RD3), and the name of any sister companies (GI11.1).

4. Revised nationality of ownership

Question GI.1 in the second section asks about the nationality of the firm's main owner. We checked the validity of responses to this question against measures of ownership from the main ASIP questionnaire.² From this, 102 conflicting cases were identified. These results were validated by direct calls and visits where necessary to establishments in July 2020, conducted by NBS. The variable *gi01_old* in the dataset denotes the old version of question GI.1 and *gi01* is the updated version based on the calls. 68 cases out of 102 conflicting cases (and 1,588 total observations) were affected by the update.

¹ https://www.nbs.go.tz/nbs/takwimu/Industry/ASIP_2016-STATISTICAL-%20REPORT-WEB.pdf

² The ASIP questionnaire (section 1) asks about the origin of establishment ownership, with options for domestic, foreign, and joint venture. Those response were compared to the results from question GI.1 in the TT module.