

Towards a conceptual framework for measuring gender-in-trade in official statistics

Anu Peltola

United Nations Conference on Trade and Development, Geneva, Switzerland

&

Steve MacFeely

United Nations Conference on Trade and Development, Geneva, Switzerland
Centre for Policy Studies, University College Cork, Cork, Ireland

Contact information: anu.peltola@un.org; steve.macfeely@un.org

Abstract

The need for statistics on gender-in-trade is becoming pressing as governments strive to develop gender responsive trade policies, especially after the signing of the Buenos Aires Declaration on Trade and Women's Economic Empowerment in December 2017. The interactions between gender and trade are intertwined with existing social norms and institutions. Consequently, they differ across countries and can take many different forms. To understand these complex relationships and mechanisms and develop effective policies, governments need better and more readily available statistics that link gender with the economy.

In view of these developments, UNCTAD has launched new work to measure gender-in-trade. This paper outlines the gender dimensions of trade that should be measured by statistics and reviews possible data sources to inform trade policy on the impacts on gender. A draft conceptual framework for the measurement of gender-in-trade is presented, building on the Evidence and Data for Gender Equality (EDGE) framework that has been adapted to the trade context. UNCTAD intends to pilot test this draft framework with countries at different levels of statistical development. This will help to identify a way forward and develop practical guidance for compiling statistics on gender-in-trade.

Key Words: gender statistics, gender and trade, 2030 Agenda, SDGs

1. Introduction

For a long time, policy makers considered trade gender-neutral and designed policy interventions accordingly. It is now widely accepted that international trade affects women and men differently due to existing gender disparities in production and consumption, in the labour markets, and due to disparities in access to resources and opportunities (UNCTAD 2014). A famous quote by Aristotle “there is nothing so unequal as the equal treatment of unequal people” still explains well why we need to know more about the gender inequalities related to trade.

The Beijing Platform for Action, signed in 1995, (para. 206)¹ called for national, regional and international statistical services, governments and United Nations agencies to collect, compile, analyse and present statistics that “reflect problems, issues and questions related to women and men in society”, including “on the full contribution of women and men to the economy, including their participation in the informal sectors”. “Improve concepts and methods of data collection on the measurement of poverty among women and men, including their access to resources”.

In almost 25 years from the signing of the Beijing Platform for Action, significant progress has been achieved in the availability of gender statistics. Work has been carried out, for example, to improve the coverage of informal activities in labour statistics, increase availability of education and health statistics by sex, develop time-use surveys as a source of information on gender equality, and create statistics and indicators on the political participation of women and men, just to mention a few areas. Regardless of significant progress, statistics combining gender and trade remain scarce.

Policy makers have started to focus more on women’s economic empowerment. In 2015, the Addis Ababa Action Agenda² stressed the importance of women’s economic empowerment³ by stating that (para. 21) “evidence shows that gender equality, women’s empowerment and women’s full and equal participation and leadership in the economy are vital to achieve sustainable development and significantly enhance economic growth and productivity”. The Action Agenda emphasizes the need to “enable women’s full and equal participation in the economy, and their equal access to decision-making processes and leadership”. Countries are urged “to track and report resources allocations for gender equality” (para. 53).

The Action Agenda also makes a connection between international trade and gender (para. 90) “recognizing the critical role of women as producers and traders” and noting the importance of facilitating “women’s equal and active participation in domestic, regional and international trade”. Chapter III of the Action Agenda is dedicated to data, monitoring and follow-up seeking “to increase and use high-quality, timely and reliable data disaggregated by sex” and by other characteristics.

The 2030 Agenda for Sustainable Development is based on the idea that “development will only be sustainable if its benefits accrue equally to both women and men; and women’s rights will only become a reality if they are part of broader efforts to protect the planet and ensure that all people can live with dignity and respect” and implementing the 2030 Agenda “will require a revolution not only in gender data

¹ The Beijing Platform for Action (1995):

http://beijing20.unwomen.org/~media/headquarters/attachments/sections/csw/pfa_e_final_web.pdf

² Addis Ababa Action Agenda of the Third International Conference on Financing for Development (2015):

http://www.un.org/esa/ffd/wp-content/uploads/2015/08/AAAA_Outcome.pdf

³ In the Oxford dictionary, empowerment is defined as authority or power given to someone to do something, or the process of becoming stronger and more confident, especially in controlling one's life and claiming one's rights.

but also in policies”⁴. While goal 5 focuses especially on gender equality, some dimensions of gender equality are reflected across the entire development agenda. Target 5.5 addresses women’s full and effective participation in economic life and target 5.a focuses on women’s access to economic resources.

In July 2016, the fourteenth session of the United Nations Conference on Trade and Development (UNCTAD)⁵, recognized the prominent role that gender equality and women's economic empowerment play towards achieving an inclusive and equitable global economic environment. They also asked UNCTAD to "reinforce its work on the links between gender equality, women's and girls' empowerment and trade and development, and support member States” in that regard (para 55(bb)).

The pressing need for data on gender and trade keeps repeating in the policy discussions relating to the Buenos Aires Declaration on Trade and Women’s Economic Empowerment⁶, signed in the 11th ministerial meeting of the World Trade Organization (WTO) in December 2017. In the Declaration, countries agree to remove barriers to, and foster, women’s economic empowerment, to make trade and development policies more gender-responsive for instance by “sharing methods and procedures for the collection of sex-disaggregated data, the use of indicators, monitoring and evaluation methodologies, and the analysis of gender-focused statistics related to trade”. The actions include carrying out an “inventory of information sources, their complementarity and the identification of data gaps” with relevant international organisations.

In view of these developments, UNCTAD has launched new work to measure gender-in-trade. To date trade and other economic statistics have been collected without having gender considerations in mind; and it is, therefore, challenging to make the statistics, collected for different purposes and points in time, interact and provide a clear picture of the key gender dimensions of trade.

2. Gender dimensions of trade

What are the gender dimensions of trade that should be measured? As the concept of gender is multifaceted and trade has wide ranging effects on income distribution and wealth, the interactions between gender and trade are complex and inherently challenging to measure. Developing statistics on gender and trade requires identifying the dimensions to be measured and defining the related concepts (See UNCTAD, 2017). Ideally this understanding would build on work accomplished to date and rely on current statistical data and measurement frameworks.

The joint project of the United Nations Statistics Division (UNSD) and UN Women on the Evidence and Data for Gender Equality (EDGE)⁷ developed a conceptual framework for analysing female entrepreneurship⁸. This paper will take the EDGE framework as a starting point to adjust and extend it for examining gender and trade. The framework looks at the determinants, outcomes and impacts of entrepreneurship that may relate to gender (see figure 1).

⁴ Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development (2018): <http://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2018/sdg-report-summary-gender-equality-in-the-2030-agenda-for-sustainable-development-2018-en.pdf?la=en&vs=949>

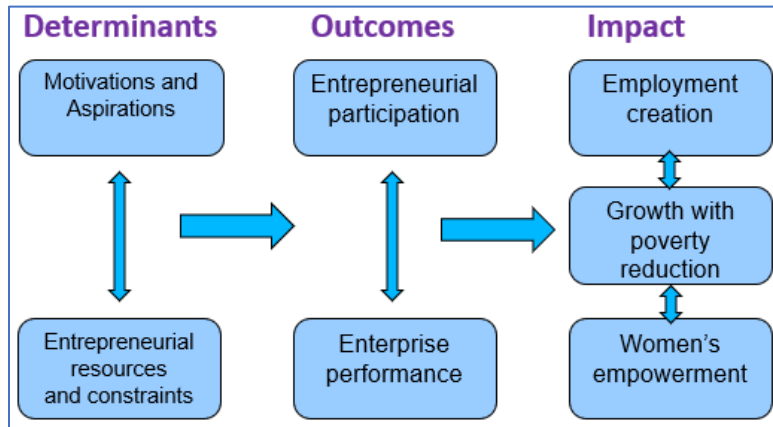
⁵ Nairobi Maafikiano (2016): https://unctad.org/meetings/en/SessionalDocuments/td519add2_en.pdf

⁶ Joint Declaration on Trade and Women’s Economic Empowerment (2017): https://www.wto.org/english/thewto_e/minist_e/mc11_e/genderdeclarationmc11_e.pdf

⁷ <https://unstats.un.org/edge/methodology/entrepreneurship/>

⁸ EDGE defines entrepreneurs as persons who have direct control over an enterprise they own alone or with others.

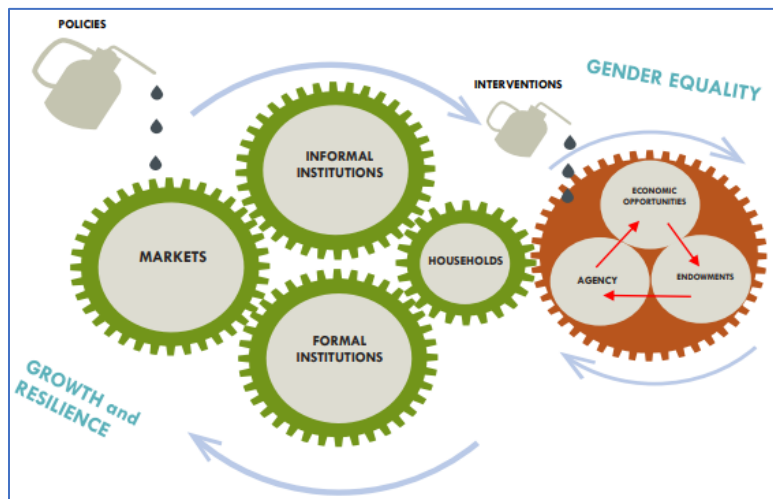
Figure 1 - The EDGE conceptual framework on measuring entrepreneurship from a gender perspective



Source: UNSD

The World Development Report (World Bank, 2012b) suggests a conceptual framework for analysing economic development and gender (see figure 2). Even though the framework does not focus on trade, it looks at interactions between actors of the economy and outcomes of gender equality that are also valid for analysing gender and trade. Importantly, this framework adds policies and interventions into the picture.

Figure 2 - The World Bank conceptual framework for analysing economic development and gender



Source: World Bank (2012b): World Development Report 2012. Gender Equality and Development.

The following sections provide a snapshot of interlinkages between gender and trade that have been studied by researchers. The aim is to provide a mapping of issues that are relevant for the measurement and analysis of gender-in-trade to reflect these in a conceptual framework for the measurement of gender-in-trade.

What determines economic and trade participation?

Researchers have studied which factors influence women's and men's possibility to participate in the economy. Three basic factors are often considered in this regard: health, education and empowerment⁹. Dollar and Gatti (1999) add the legal and economic equality of women and men to these three determinants in their research.

The possibilities to participate in trade are also influenced by working conditions. Women are often overrepresented in the informal sector, seasonal and unpaid work as well as voluntary and household work. This influences their time-use and income differentials. Income is an important factor that influences the possibilities to start a business and participate in trade. Not only does it provide a source of financing, Anderson and Eswaran (2009) also note that earned income influences women's empowerment in households, for instance when deciding about participation in economic activities.

Developing Kabeer's (1999) three dimensions of economic empowerment (resources, agency and achievements) Laszlo et al. (2017) consider economic empowerment as a process by which women acquire access to and control over economic resources, opportunities and markets, enabling them to exercise agency and decision-making power to benefit all areas of their lives. They divide possible indicators firstly to direct determinants of women's decision-making power and secondly to indirect measures of the outcomes of that decision-making, such as the labour force participation rate. Thirdly, data are needed on constraints that are outside the direct control of a household or a person, such as property rights or right to education.

UNCTAD's analytical studies covering several developing and least developed countries¹⁰ identify constraints to women's economic empowerment. These include, for instance, unequal economic rights and unequal access to productive resources; poor access to vocational and on-the-job training; and a large proportion of time spent in care and household work that are also reflected in women's high participation in low productivity work and low participation in high-skill occupations as well as commercialized and capital-intensive production and trade.

Summarizing the findings from several studies, statistics on the determinants of trade participation should include data on the key factors mentioned above, such as on education, time-use, economic roles in employment, income and access to other resources, decision-making in households and society, security and safety and rights of women and men. Data would also be needed on personal motivations and aspirations, health, socio-cultural and institutional issues, such as religious or legal constraints and enablers of participation in trade.

How does gender equality link to trade participation and performance?

There are significant differences in how women and men participate in trade. According to OECD's (2018) analysis of gender in global value chains, men's share of jobs at exporting firms is relatively high, while women are more often employed by suppliers of the exporting firms. Women's jobs are also much more often in the service sector, rather than in manufacturing (Braunstein, 2017).

⁹ Joint Declaration on Trade and Women's Economic Empowerment (2017):

https://www.wto.org/english/thewto_e/minist_e/mc11_e/genderdeclarationmc11_e.pdf

¹⁰ The studies and a synthesis report are available at: <http://unctad.org/gender>

Women and men may be involved in trade as workers, producers, traders, tax payers and users of public services. Changes in trade and trade policies may influence their participation in the labour force and their roles in the firms that import and export goods and services. For instance, Joekes and Weston (1994) noticed that in developing countries export expansion often relates to increases in female employment shares in manufacturing and services, often referred to as feminization of labour. Defeminization¹¹ of labour, on the other hand, may happen during a shift to more capital-intensive production, and in case wages in female-intensive production increase attracting more men to the industry.

Braunstein (2017) identifies a two-way causality between gender equality and economic growth: Economic growth affects gender equality in many ways, but gender biases also influence macroeconomic outcomes, such as growth, trade, imbalances and inflation.

Busse and Spielman (2005) find evidence of businesses benefitting from women's lower wages in some labour-intensive industries in developing countries. However, many researchers find evidence of benefits for trade and economic growth from improved gender equality, for instance in education, employment and access to finance (Dollar and Gatti, 1999; Klasen and Lamanna, 2009). The effects depend on the sector, country and the specific conditions in each economy.

Thus, the analysis of trade participation will require data on the share of women and men employed by exporting or importing (firms or) sectors, type of occupations by sex, the share of women and men entrepreneurs, owners and managers of businesses that are engaged in trade etc. Ideally data would be available for analysing the roles of women and men as producers, consumers, workers, traders and business owners or managers. To analyse the impact of gender equality on trade performance, researchers are relying on data from key economic statistic, such as on exports and imports, trade openness and costs, innovation statistics, foreign direct investment and government tariff revenues.

What are the possible gender-differentiated impacts of trade?

Trade may influence employment and business opportunities of women and men, their income, social status, welfare and equality between women and men. Trade may act as a catalyst for gender equality when trade liberalization is associated with rising employment and business opportunities for women, but it can also exacerbate existing gender inequalities and even worsen women's economic and social status (World Bank, 2012a).

Kucera and Milberg (2000) found that the expansion of trade between OECD countries and developing economies between 1978 and 1995 resulted in disproportionate job losses for women in OECD countries, as most workers were women in import-competing industries, such as textiles, footwear and leather. The same finding was made for agricultural economies, where women are concentrated in import-competing sectors such as food crop production (Bussolo and De Hoyos, 2009), and in Africa, where Seguino and Grown (2006) found that tariff reductions on labour-intensive imports resulted in higher job losses for women than for men.

UNCTAD (2004) studied the impacts of trade liberalization and noted that it may strengthen financial independence and agency of women at the household level in addition to providing income and employment opportunities. However, increased international competition can also push wages down, especially for employees in low-skilled jobs without strong bargaining power. Trade may affect women

¹¹ Defeminization refers to a decrease in the female share of employment.

and men positively or negatively depending on the sector; whether the sector expands or contracts in production; and depending on how international competition affects the local labour market.

In this respect, it is important to review the impacts on working conditions such as job security, health and occupational safety. To analyse the impact of trade on women and men more accurately, such statistics should also consider unpaid work as part of labour input (e.g. Çagatay, 2001). It may be difficult to get data on the bargaining power of women and men in society, their economic and social status, wellbeing and empowerment. When looking at the economic impacts of trade, three types of impacts on households and individuals can be identified that would require basic statistical data:

- Consumption effect through the impact on prices of goods
- Income effect on wages, sales of products and employment opportunities
- Revenue effect through the impact on government revenues and transfers

How can trade policies affect gender equality?

Trade policy interventions and other measures may have intended or unintended gender-differentiated effects. The interventions interact with socio-cultural norms, economic roles and structures of the country concerned. The gendered effects are transferred through resource endowments, property rights, labour market institutions and other country specific conditions that mediate the distribution of costs and benefits from trade (Isaza Castro 2006), including trade policies.

Trade policies may affect gender equality in various ways – such as through changes in growth and employment opportunities, competitive pressures, access to resources and services, and trading rules (UNCTAD 2004).

Literature often looks at how trade liberalization, such as reduced tariffs or increased openness to trade, relate to gender equality. Some research finds a positive impact on the gender wage gap from policies that promote trade expansion (Black and Brainerd, 2003; Rasekhi and Hosseinmardi, 2012), and some find a negative impact (Menon and Rodgers, 2006; Sauré and Zoabi, 2014) depending on the countries studied. In an analysis of 62 countries, Weichselbaumer and Winter-Ebmer (2002), for instance, find that the gender wage residual is consistently lower in the case of higher competition and in the presence of equal treatment laws.

There may also be indirect effects from trade liberalization policies on gender equality and division of labour between women and men. If tax revenue from trade taxes falls, this may reduce public expenditure on social services, education and health, which may in turn increase women's unpaid work burden to substitute for public services (Van Staveren, 2007).

There are different types of trade policy interventions that are likely to have gender-differentiated effects. In principle, data would be needed on the different policy measures taken, for example:

- Trade reforms and policies
- Customs procedures
- Import tariffs and quotas
- Export taxes, subsidies and restraints
- Export finance and risk mitigation
- Multilateral, regional and bilateral trade agreements

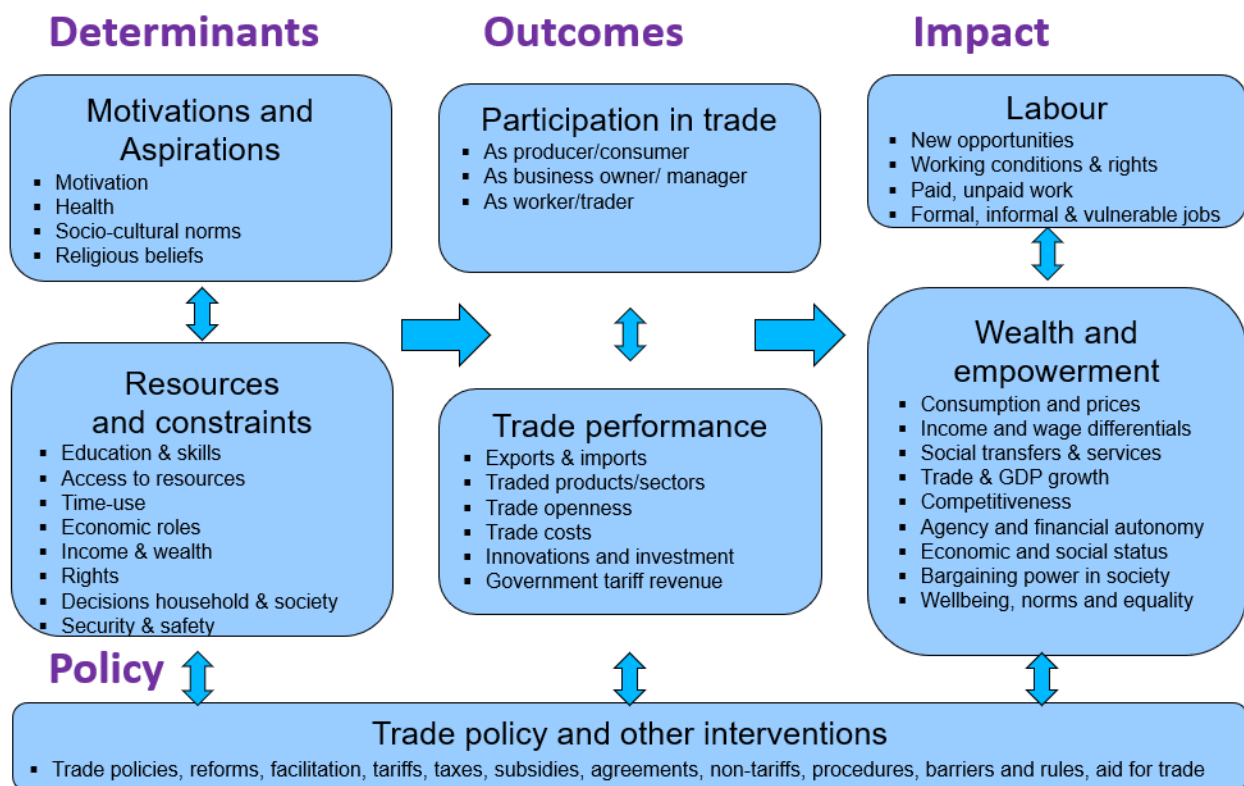
- Non-tariff measures, including sanitary, technical or trade protective restrictions on imports, price-control, intellectual property and trade-related investment measures¹²

3. Defining a framework for measuring gender-in-trade

We can formulate a draft conceptual framework for measuring gender-in-trade by summarizing the above discussion (see figure 3). At least the following elements should be considered when aiming to measure the interactions of gender and trade:

- **Determinants** of the participation of women and men in trade: motivations and aspirations, resources and constraints;
- **Outcomes** reflecting the degree of participation and roles of women and men;
- **Impacts** including the effects of trade on employment, division of labour, income, empowerment and wellbeing etc.;
- **Trade policy** and other government interventions that may influence gender equality. This element has been added on top of the above three elements included in the EDGE framework.

Figure 3 – UNCTAD conceptual framework for measuring gender-in-trade



Source: Authors' reflections based on the EDGE framework.

Populating a full framework for the measurement of numerous interactions between gender and trade requires bringing together data from across statistical domains. A challenge that needs to be addressed is how to link these data across domains. Samples of households and businesses are based on different

¹² The International Classification of Non-Tariff Measures (UNCTAD 2015) provides a full list of the types of non-tariff measures here: http://unctad.org/en/PublicationsLibrary/ditctab20122_en.pdf?user=46

populations, and statistics are collected for specialised purposes, for different statistical units and frequencies. The below sections provide some ideas on potential statistical data sources reflecting on the main findings of an inventory of available national and international statistical sources.

Statistics on determinants of trade participation

Comprehensive statistical data on employment by sex are available from national statistical systems. Labour force surveys may also shed light on the work-life balance, when they collect data on marital status, employment status, presence of preschool children, other dependents and availability of childcare services¹³. However, there are challenges as well. For instance, women are often engaged in informal employment that is not fully captured by statistics (see ILO, 2013).



Health and education statistics are among the most commonly available statistics by gender. Statistics on household decision-making and gender inequality in access to technology, land and productive resources are scarcer. Similarly, information on the motivation and aspirations of women and men regarding participation in the economy and trade and information on the socio-cultural norms that may affect their choices are not usually available from official statistics.

Data on economic rights has started to improve gradually through surveys and databases of international organisations, such as FAO (2016) and the World Bank (2018). The availability of data on access to resources – information networks, finances and services – is gradually improving through global surveys.



Time-use surveys, carried out by many national statistical offices, provide important data on the time-use patterns – an outcome of household decision-making. Time-use surveys are useful for assessing time used on unpaid work or non-market production (see UNECE, 2017); social activities and leisure; work-life balance; gender equality in time-use etc. However, these surveys are carried out less frequently due to the high costs and burden on respondents. Options, such as light survey modules, are pursued in addition.

Unsafe conditions may hamper women's participation in trade. In 2011, UNECE developed a survey module for the measurement of violence against women that has been tested and applied by national statistical offices, and such surveys have been carried out across 28 EU countries since then. The safety of the conditions to trade could be measured with similar approaches where this is an issue.

Statistics on trade participation and performance

Information from the labour force survey, population census and employment statistics by sector provides the basis for analysing women's and men's labour force participation and potentially participation in trade. Statistics on employment in export-oriented industries can serve as a proxy of women's and men's participation in trade in the lack of microlevel data on individuals who work in exporting firms.

Currently, data on women and men as consumers of traded goods and services are not easily available, or easy to compile. Statistics compiled based on the household budget survey may be otherwise helpful for analysing the income and employment status of women and men, but they often do not provide data

¹³ For more details, see the UNSD Gender Statistics Manual: <https://unstats.un.org/unsd/genderstatmanual/>

on the consumption patterns of individual household members. The living conditions survey may also provide the means to assign the consumption of certain goods and services, but not often by sex¹⁴.



The structural earnings survey is a useful source for data by occupation, including sub-classes for senior officials, managing directors and chief executives by industry and gender. Indicators on women and men as business owners in different industries are becoming more widely available and could be reviewed in connection to the export intensity of the industries. Surveys focused on power and decision-making in businesses are not typically carried out by statistical offices.

Analysis of women and men working in enterprises engaged in trade would require linking of microdata on employers and employees with trade. OECD (2018) has analysed gender roles in global value chains with input-output tables¹⁵ and trade in value added data combined with hours worked by industry from the national accounts, broken down by gender. The breakdown was estimated from labour force surveys.

Official statistics on trade in goods and services and economic development are widely available from statistical systems and global databases. These include statistics on GDP, exports and imports. UNCTAD and the World Bank compile and make available trade openness indicators¹⁶ that compare total trade in goods and services to GDP. Some statistical offices carry out innovation surveys among businesses that could be combined with a variable showing whether these businesses participate in exports or imports.



Statistics on the gender impacts of trade

National statistics on the business sector and employment could be linked to trade statistics to reflect on opportunities and changes in jobs and working conditions. One could also review statistics on new job openings, business start-ups and closures in export or import-oriented industries.

Some statistics on working conditions¹⁷ and quality of employment¹⁸ for women and men are available. These studies provide rich information about job security, income, non-wage benefits, fair treatment, work-life balance, informal employment, forced labour, working time arrangements, working hours, skills development, motivation, relationships at working place etc., but are not collected frequently.



Wages and earnings statistics disaggregated by sex could be assessed by employer sector, for instance by comparing wage differentials by gender in the export-oriented industries to other sectors. Going to the microdata level could enable selecting employers that are engaged in trade and studying wages and earnings by

¹⁴ Ibid.

¹⁵ An input-output table is a detailed analysis of the process of production (produced by statistically advanced countries), describing the sale and purchase relationship between producers and consumers within an economy by showing flows of final and intermediate goods and services by industry or by product.

¹⁶ UNCTADStat provides trade openness indicators calculated as exports, imports and sum/average of exports and imports as percentage of nominal gross domestic product (GDP): <https://unctadstat.unctad.org>

¹⁷ Eurofound surveys: www.eurofound.europa.eu/surveys/european-working-conditions-surveys

¹⁸ EU data on quality of employment: <https://ec.europa.eu/eurostat/web/labour-market/quality-of-employment>

sex. Some governments also oblige largest companies and public bodies to report openly on their gender pay gap¹⁹ and the share of women and men employed.

Statistical offices provide a variety of income data disaggregated by sex, such as gross earnings; disposable income; hourly, weekly and annual earnings; investment, self-employment or pension income; social transfers etc. These data are often collected in the household income or budget survey. Comprehensive data sets on taxable income enable rich analyses of gender differentials in some countries. Monthly labour force surveys may also include questions on earnings (hourly, weekly or monthly) and take-home pay.

Trade is linked to changes in the prices of goods and services, and their effects on the available disposable income and consumption patterns could be reviewed using household surveys. Changes in government social transfers, potentially linked to reduced or increased government tariff revenue, are reflected by government expenditure statistics. These changes could then influence time-use between activities in the markets and within the household, again underlining the importance of time-use surveys.



Laszlo et al. (2017) list possible measures of economic empowerment, such as statistics on psychological and cultural factors, social and economic norms and status, access to and control of resources, rights, agency, participation and time-use, health, knowledge and education etc. While data on the personal, social and cultural factors are rarely available, the Demographic and Health Surveys²⁰ offer a set of socio-economic, population and health indicators and measures of household decision-making etc. The OECD²¹ and UNSD²² provide quite a lot of statistics on governance and gender.

Statistics on trade policy

Data on trade policy interventions – trade protection, tariff and non-tariff measures (UNCTAD, 2015) and trade agreements – are available in the World Integrated Trade Solution (WITS) that includes the UNCTAD Trade Analysis Information System (TRAINS), UN COMTRADE, WTO integrated database and WTO consolidated tariff schedules. The International Trade Centre (ITC) carries out Non-Tariff Measures Surveys²³ that also include some questions related to women and trade.



ESCAP and the World Bank developed a database²⁴ based on gross output data to provide sectoral trade cost²⁵ estimates for about 180 countries. ESCAP has also issued a value-added trade cost database, based on the OECD-WTO trade in value added (TiVA) data and which includes trade cost in services.

¹⁹ Definitions may vary in enterprise reporting. The unadjusted gender pay gap is defined as the difference between the average gross hourly earnings of men and women expressed as a percentage of the average gross hourly earnings of men.

²⁰ <https://dhsprogram.com/Topics/Womens-Status-And-Empowerment.cfm>

²¹ <http://www.oecd.org/gender/data/>

²² <https://genderstats.un.org/#/data-availability>

²³ <https://ntmsurvey.intracen.org/home/>

²⁴ <https://www.unescap.org/resources/escap-world-bank-trade-cost-database>

²⁵ Trade costs include here all direct and indirect costs associated with fulfilling regulatory import and export requirements; differences in currencies, languages, culture and geographical distance; and domestic and international shipping and logistics costs associated with imports and exports.

Data on official development assistance are available in the OECD Creditor Reporting System²⁶, which covers around 90 per cent of development assistance and enables the tracking of global aid for trade flows by provider, recipient and project. The OECD database also includes an indicator of aid projects targeting gender equality and women's empowerment.

One should note that even with ample statistics, data would not be able to separate the gender impacts of trade policies from other factors affecting trade and gender. This would be left to the consideration of those analysing these data.

4. The way forward with statistics on gender-in-trade

Having data on businesses' engagement in international trade and on the gender of entrepreneurs, managers, self-employed and employees is key to compiling statistics on gender-in-trade. The following actions would advance the compilation of statistics on gender-in-trade:

- **Entrepreneurship:** Gender dimension should be added to business surveys, where possible, as well as data on the demographic profile of business owners and managers (e.g. gender, age, educational and professional background, family status) (See UNECE, 2018). Improved coverage of informal entrepreneurship, self-employed and home-based firms would be important to measure female entrepreneurship (see OECD, 2001). Statistical business registers should include variables on the gender of business owners and businesses' engagement in trade.
- **Employment:** The employer and employee linkage should be strengthened by improving the coverage of sample surveys, and collection of data on the types of jobs held by women and men, including managerial positions should be improved. Employer-employee data sets from outside the statistical system could be useful, e.g. those held by chambers of commerce. Better coverage of informal work would be important. More frequent surveys on working conditions, types of contracts, status in employment, individual's earnings and flexibility of working arrangements are needed.
- **Production:** A stronger employer and employee link in business statistics would enable analysis of types of jobs and working conditions in exporter/importer firms, and the compilation of statistics on the profitability of business engaged in trade etc. More regular time-use surveys would inform the measurement of un-paid household service work.
- **Consumption:** Statistical offices should develop methodologies to compile data on consumption expenditures, income and assets separately for each household member, and increase the frequency of household budget data collection, as relevant and feasible. Linking consumption to trade is difficult, so the analysis is likely to be mostly covered by research rather than statistics.

UNCTAD works jointly with statistical agencies, other governments offices and international organisations²⁷ to develop the measurement of gender-in-trade. The UNCTAD work stream aims to:

- Seek advice from trade and gender policy makers on data needs and invite statisticians to consider how to respond to the needs at events, for instance at the UNECE expert meeting on gender statistics (15-17 March 2019), and previously at the UNCTAD/Iceland/Botswana Workshop on Gender in Trade Agreements (28 March 2019), the WTO Women and Trade Event (6-7 December 2018) and the UNCTAD session on better data and statistics for gender-responsive trade policy as part of the WTO Public Forum (4 October 2018);

²⁶ <https://stats.oecd.org/Index.aspx?DataSetCode=crs1>

²⁷ Including the European Commission, International Labour Organization (ILO), OECD, UN Women, World Bank, World Trade Organization (WTO) and UN Regional Commissions.

- Develop a statistical framework for the measurement of gender-in-trade to launch work to improve availability of statistics and data;
- Design survey modules that could be added to regular surveys carried out by statistical offices, and develop more comprehensive survey tools for countries with significant data gaps; and
- Invite country case studies to test data availability and develop methodologies. Work is currently under way with Canada and Finland, and additional countries are welcome to join the work stream.

These activities will feed into a capacity building programme, which UNCTAD will carry out with UNECE and UNECA to strengthen countries' statistical capacity to measure gender and trade. The project will target 5-7 countries in Europe and in Africa with 2-3 pilot countries in each region.

References

Anderson, S. and Eswaran, M. (2009) *What determines female autonomy? Evidence from Bangladesh*. Journal of Development Economics 90: pp. 179-191.

<https://www.sciencedirect.com/science/article/pii/S0304387808001089>

Black, S. and Brainerd, E. (2003) *Importing equality? The impact of globalization on gender discrimination*. Industrial and Labor Relations Review 57: pp.540-559.

Braunstein, E. (2017) *The gender dynamics of inclusion and exclusion: a macro perspective on employment* Chapter IV in: UNCTAD, Trade and Development Report 2017, Geneva, UNCTAD.

<https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1852>

Bussolo, M. and De Hoyos, R.E. (2009). *Gender Aspects of the Trade and Poverty Nexus: A Macro-Micro Approach*, Washington, DC, Palgrave Macmillan and the World Bank.

<https://openknowledge.worldbank.org/handle/10986/13264>

Busse, M. and Spielmann, C. (2005) *Gender Inequality and Trade*. Hamburgisches Welt-Wirtschafts-Archiv (HWWA), Discussion Paper No. 308, Hamburg Institute of International Economics.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=660024

Çagatay, N. (2001) *Trade, Gender and Poverty*, Background Paper for the Trade and Sustainable Human Development Project, New York: UNDP.

http://www.levyinstitute.org/pubs/wp_790.pdf

Dollar, D. and Gatti, R. (1999) *Gender Inequality, Income, and Growth: Are Good Times Good for Women?* Gender and Development Working Papers, No. 1.

<http://documents.worldbank.org/curated/en/251801468765040122/pdf/multi-page.pdf>

FAO (2016) *Agri-Gender Statistics Toolkit* <http://www.fao.org/3/a-i5769e.pdf>

ILO (2013) *Measuring informality: A statistical manual on the informal sector and informal employment*.

http://www.ilo.ch/global/publications/ilo-bookstore/order-online/books/WCMS_222979/lang-en/index.htm

Isaza Castro, J. (2006) *Trade liberalization and gender effects: a literature review for Colombia*. Revista Equidad y Desarrollo N° 5: pp. 109-129 / Enero-junio 2006.

<https://revistas.lasalle.edu.co/index.php/ed/article/view/360>

Joeke, S. P. and Weston, A. (1994) *Women and the New Trade Agenda*, New York. United Nations Development Fund for Women.

Kabeer, N. (1999) *Resources, agency, achievements: reflections on the measurement of women's empowerment*. Development and Change 30: pp. 435-464. Also available at:

<https://onlinelibrary.wiley.com/doi/epdf/10.1111/1467-7660.00125>

Klasen, S. and Lamanna, F. (2009) *The impact of gender inequality in education and employment on economic growth: New evidence for a panel of countries*, in *Feminist Economics*, Vol. 15, No. 3, pp. 91-132. <http://chicagopolityreview.org/wp-content/uploads/2014/09/Gender-and-Economic-Growth.pdf>

Kucera, D. and Milberg, W. (2000) *Gender Segregation and Gender Bias in Manufacturing Trade Expansion: Revising the "Wood Asymmetry"*, *World Development*, 28 (7): pp. 1191-210.

<https://static1.squarespace.com/static/53ce7840e4b01d2bd01192ee/t/55a6be71e4b0393512e3c5cf/1436991089623/GenderSgregationMilberg.pdf>

Laszlo, S. Grantham, K. Oskay, E. and Zhang, T. (2017) *Grappling with the Challenges of Measuring Women's Economic Empowerment*, GWP-2017-12 - Research Contribution Paper. Institute for the Study of International Development. grow.research.mcgill.ca/publications/working-papers/gwp-2017-12.pdf

Menon, N. and Rodgers, Y. (2006) *The Impact of Trade Liberalization on Gender Wage Differentials in India's Manufacturing Sector*, *Labor: Public Policy & Regulation e-Journal*.

https://www.researchgate.net/publication/228279472_The_Impact_of_Trade_Liberalization_on_Gender_Wage_Differentials_in_India's_Manufacturing_Sector

Rasekhi, S. and Hosseinmardi, H. (2012) *An Impact of Globalization on Gender Wage Inequality: A case Study of Selected Developing Countries*, *International Journal of Business and Development Studies* Vol. 4, No. 1, (2012) pp.27-40. http://ijbds.usb.ac.ir/article_1272_0dce3c3291568b130df8db2caacca46.pdf

OECD (2001) *Issues related to statistics on women's entrepreneurship workshop on firm-level statistics*, OECD Working Party on Statistics 26-27 November 2001 <http://www.oecd.org/sti/ind/2668264.pdf>

OECD (2018) *Gender in Global Value Chains. How does trade affect male and female employment?* Fabienne Fortanier and Guannan Miao, Statistics and Data Directorate.

<http://www.oecd.org/sdd/its/Women-in-GVCs.pdf>

Sauré, P. and Zoabi, H. (2014) *International Trade, the Gender Wage Gap and Female Labor Force Participation*, *Journal of Development Economics*, Elsevier, vol. 111(C), pp. 17-33.

https://hosnyzoabi.weebly.com/uploads/7/9/7/2/7972742/saurezoabijde_r2.pdf

Seguino, S. and Grown, C. (2006) *Gender equity and globalization: Macroeconomic policy for developing countries*, *Journal of International Development*, 18(8): pp. 1081-1114.

https://mpira.uni-muenchen.de/6540/1/MPRA_paper_6540.pdf

UNECE (2018) *Guidelines on the use of statistical business registers for business demography and entrepreneurship statistics*. <http://www.unece.org/index.php?id=51127>

UNECE (2017) *Guide on Valuing Unpaid Household Service Work*.
<https://www.unece.org/fileadmin/DAM/stats/publications/2018/ECECESSTAT20173.pdf>

UNCTAD (2017) Teaching material on trade and gender. Volume 1. Unfolding the links, Module 4, *Trade and Gender Linkages: An Analysis of the Common Market for Eastern & Southern Africa (COMESA)*. United Nations. https://unctad.org/en/PublicationsLibrary/ditc2016d1_en.pdf

UNCTAD (2015) *The International Classification of Non-Tariff Measures*. United Nations. http://unctad.org/en/PublicationsLibrary/ditctab20122_en.pdf?user=46

UNCTAD (2014) *Trade and Gender - Unfolding the links, Virtual Institute Teaching Material on Trade and Gender (Volume 1)*. https://unctad.org/en/PublicationsLibrary/gds2014d1_en.pdf

World Bank (2012a), Higgins K. *Gender Dimensions of Trade Facilitation and Logistics. A Guidance Note*. http://siteresources.worldbank.org/INTRANETTRADE/Resources/Pubs/Gender_Dimensions_Trade_Facilitation_Logistics_Higgins_electronic.pdf

World Bank (2012b): World Development Report 2012. Gender Equality and Development. Washington, DC. <https://siteresources.worldbank.org/INTWDR2012/Resources/7778105-1299699968583/7786210-1315936222006/Complete-Report.pdf>

World Bank (2018) *Women, Business and the Law* <https://wbl.worldbank.org/>