

## **CHAPTER V. PERFORMANCE INDICATORS**

### **A. Need for performance indicators**

5.1. The increasing demand for information to assess businesses' status in distributive trade sector in the areas of profitability, productivity and efficiency have led to intense interest in wholesale and retail trade performance indicators. Performance indicators make it possible either to evaluate performance of individual retailers and wholesalers or to see how well the distributive trade is performing in relation to other industries in national economy or internationally.

5.2. The information collected using the data items described in the previous chapter is useful in analyzing the structure and production activity of wholesale and retail trade units. However, direct use of those data items in policy or management decisions is not always sufficient. There is a clear need for another set of variables to satisfy these needs. This set of variables is referred to as performance indicators.

5.3. It is recognized that given the diversity of users' needs and the fact that they may change over time, it is not possible to create a definitive list of performance indicators that can be applied in all countries and in all circumstances. This chapter suggests a limited set of indicators for monitoring and measuring the overall performance of distributive trade sector as a whole or the performance of some of its divisions and allows meaningful national and international comparability. It describes also the objectives of performance indicators, the key principles on how they can be developed, best used and interpreted in distributive trade.

### **B. Objectives of performance indicators**

5.4. In general, a performance indicator is a policy relevant variable, a number or quantitative description, reflecting the conditions and functioning of any sector, including the distributive trade sector or its units. In practice, a performance indicator can be any ratio that summarizes two or more important measurements and that is tied directly to the performance rather than to the activity of a unit or a sector.

5.5. Performance indicators are also a powerful instrument to present complex information in a synthesized way and serve as means of summarizing and communicating the information to decision makers and to the public. As a tool for measuring the overall performance of distributive trade sector, the performance indicators help policy makers and economic planners to evaluate how effectively trade activity is organized, to identify potential areas of improvement and to make more informed strategic decisions regarding future strategy of development.

5.6. Compilation and wide dissemination of performance indicators is intended also to help units active in distributive trade in assessing the business environment in which they operate. Performance indicators allow retailers and wholesalers to develop their own performance measurement programmes, to identify and set their long term trends in performance and to measure their progress. Managing and reporting performance can lead to significant business benefits such as increased efficiency through reducing and managing the resources, increased sales, improved reputation among costumers.

5.7. Performance indicators are also a suitable tool for academicians and researchers who use them for making comparisons across countries and industries and over time and for identifying factors that lead to better performance.

### **C. Types of performance indicators**

5.8. The performance indicators can broadly be distinguished into three types, namely: (i) growth rates; (ii) ratio indicators; and (iii) share indicators. Some of the performance indicators are applicable to any kind of economic activity, while compilation of others is meaningful for distributive trade sector and its three sub-sectors only. Most of the information necessary for calculation of performance indicators is generated in the accounting and payroll records of enterprises and it is included in the statistical surveys on distributive trade. In order to make use of some particular measures, however, it may be necessary to generate new information.

5.9. The compilation of performance indicators should be considered as a part of distributive trade statistics programme by all countries. It is recommended that annually the performance indicators are compiled at the 3-digit (group) level of ISIC, Rev.4, and quarterly - at the 2-digit (division) level.

5.10. Most of the performance indicators have a comparative dimension or a reference point that permits time series evaluation. Depending on the importance and data availability businesses can compile and track some of the indicators daily (for example turnover), while other users may study them monthly (inventories to sales ratios), quarterly or annually.

5.11. Historically, the importance of any economic activity, including distributive trade, in total economy is measured by means of two indicators – generated value added and employment and their respective proportions or growth rates. Those, and some additional performance indicators in the sections below are recommended for compilation:

#### **1. Growth rates**

##### ***Value added growth***

5.12. Annual (quarterly) percentage change of value added of distributive trade activity (or value added of any other economic activity) is the value added growth rate. It is

expressed in terms of an arithmetic growth rate as  $(Y_t/Y_{t-1}) - 1$ , where  $Y$  and  $t$  denote the value and the time period respectively.

### ***Distributive trade employment growth***

5.13. Employment growth in distributive trade activities is the annual (monthly or quarterly) percentage change of persons employed in distributive trade sector. The indicator can be compiled by kind-of-activity, by employment categories, by gender and by size class of enterprises.

### ***Retail Trade/Wholesale Trade Turnover Index<sup>1</sup>***

5.14. This index is an indicator of the monthly activity of distributive trade sector in nominal and real terms. As such, it is included in the list of short-term distributive trade statistics, but it is also listed here as performance indicator due to its importance for the evaluation and analysis of the development in wholesale and retail trade turnover. It describes exclusively the development and not the level of turnover (item 5. (a)).

5.15. In real terms the index is calculated by deflating the current values of turnover with the appropriate price indices. The deflators of retail trade turnover can be corresponding CPI indices while deflators of wholesale trade should have a similar methodology to that of the PPI adapted to the particularities of wholesale trade and reflecting price changes in the goods traded rather than the trade services provided. If wholesale price indices are not compiled, the appropriate PPI are accepted as a reasonable proxy for wholesale prices. Deflation in general is the preferred method for obtaining the turnover in real terms, however direct volume indicators will be the alternative when price indices are missing.

5.16. It is preferable to have the data on turnover adjusted for calendar and seasonal variations by applying the appropriate seasonal adjustments methods<sup>2</sup>. The rate of change (or growth) is determined as a percentage change of turnover over corresponding month of the preceding (if chain linked) or a base year. Alternatively in lieu of retail trade/wholesale trade turnover index, the volume of turnover may be used.

5.17. The nominal monthly turnover index (turnover value index) is calculated in a similar way, i.e. as a percentage change of monthly turnover over the turnover of preceding or a base year. The base year (preceding year is also a base year) value is the arithmetic mean of the twelve monthly turnover results for the base year.

5.18. Following the approach of monthly index numbers calculation, quarterly and annual indices could be compiled.

## **2. Ratio indicators**

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<sup>1</sup> For addition information on turnover index, see Chapter VII. Short-term distributive trade statistics

<sup>2</sup> For additional information on seasonal adjustment methods, see Chapter VII. Short-term distributive trade statistics

### ***Output per person employed***

5.19. Output per person employed is obtained by dividing the gross output, as defined in item 8.1 by the number of persons employed (item 2.1). Relating gross output with labour measures (and capital and intermediate inputs) at the level of individual units or activities underlies different aspects of productivity measurement. This indicator reflects the change in the input coefficient of labour by activity and can help in the analysis of the labour requirements by activity.

5.20. Any indicator that has the total number of persons employed as denominator has shortcomings as it is influenced by sourcing of the labour input and the shifting share of part-time employment in the workforce. For example, it rises as a consequence of outsourcing and also does not reflect a change in the individual characteristics of the workforce. One way to correct for part-time employment is to take into account the number of hours worked.

### ***Value added per person employed***

5.21. This performance indicator is a ratio of the total value added (item 10.1) to the total number of persons employed (item 2.1). The value added per person employed is the popular method for estimating the trends in labour productivity for total economy and by activity.

### ***Value added per hour worked***

5.22. Simple headcount of employed persons hides changes in average hours worked, caused by the evolution of part-time work or the effects of variations in the overtime or shifts in standard working hours. Labour input to the process of production is most appropriately measured as the total number of hours worked. Using the information on total hours worked, the value added per hour worked, is obtained by dividing the total value added (item 10.1) by total hours worked (item 2.5) to generate this value added. The performance indicator is similar to value added per person employed, however in order to provide accurate results it requires good quality data on hours worked. Depending on data availability the indicator can be calculated with quarterly or annual periodicity. The indicator shows the changes from period to period in the amount of goods and services produced per hour.

### ***Turnover per person employed***

5.23. This performance indicator is derived as the total turnover (item 5. (a)) is divided by a total number of persons employed (item 2.1). To demonstrate the trend, it can also be measured in real terms, i.e. as turnover in real terms (see para. 5.60) is divided by total number of persons employed. The indicator is useful for interpreting the development in individual distributive trade sub-sectors, because the turnover in some distributive activities could be relatively high (turnover of wholesalers and retailers on own account)

comparing to turnover of others (wholesaling on a commission basis). The indicator can be compiled by kind-of-activity, by employment categories, by size class of enterprises, etc.

#### ***Gross margin to turnover ratio***

5.24. This performance indicator is obtained as the gross margin on goods for resale (item 8.1.1) is divided by the turnover from trading activities of purchase and resale only (item 5.1.2). The ratio is a good indication of trade units' performance and provides a basis for comparison between different types of trade.

#### ***Inventories to turnover ratio***

5.25. The inventories to turnover ratio is the relationship of the end-of-month values of inventories to the monthly turnover. Inventories typically represent a large share in traders' total assets therefore the improvement in inventory management can have a significant impact on their profitability. The ratio is more important for short term trade statistics, although it may be calculated for any time period. For example, a ratio of 2.5 would indicate that the retailer or wholesaler have enough merchandise on hand to cover two and a half months of sales.

#### ***Sales per retail sales space***

5.26. The sales per sales space ratio is derived as turnover (item 5. (a)) is divided by the sales space, i.e. the estimated floor area of that part of the premises devoted to selling and display. The sales space includes the total space to which the customers have access, including fitting rooms; counter space and window space; and the space behind the counters used by shop assistants. Sales space does not include offices, storage and preparation rooms, workshops, staircases, cloakrooms and other amenity rooms. The specific categories of sales space should be defined in the context of national circumstances. Due to non-uniformity of sales space classes and different country practices in this area is not possible to establish international breakdown of sales space.

### **3. Share indicators**

#### ***Share of distributive trade value added in total value added***

5.27. This performance indicator refers to the proportion of value added generated in distributive trade (or any other economic activity) to total value added of the economy. When this indicator is calculated for all economic activities, it depicts the structural composition of the economy and shows contribution of individual economic activities to GDP.

#### ***Share of distributive trade activity employment in the total employment of the economy***

5.28. This performance indicator serves as a useful tool for assessing the segmentation and trends in labour market. It is calculated as ratio between the total number of persons employed in distributive trade to total number of persons employed in total economy.

#### ***Share of e-commerce sales in total turnover***

5.29. This performance indicator is calculated as the share of total turnover (item 5. (a)) accounted for the e-commerce sales (item 5. 4). The importance of this indicator has increased in recent years with the tremendous expansion of transaction completed over a computer-mediated network.

### **D. Additional indicators**

5.30. The indicators under this heading do not necessarily evaluate the performance; rather they are suggested to help businesses and other users to monitor some specific aspects of organization of trade activity. Many of them can be applied to an individual store, an entire enterprise or a class of section G of ISIC, Rev.4 on a monthly, quarterly or annual basis. However, it should be noted that their compilation require collection of additional data, thus increasing significantly the burden on respondents. Countries are advised to collect this information only if their own circumstances warranted the collection of such data.

#### ***Structure of wholesale trade turnover***

5.31. By definition, the wholesale trade enterprises (units classified in Division 46 of ISIC, Rev.4) resell goods and services to retailers; professional users (businesses, institutions, government bodies, etc.) and other wholesalers; and in some cases to final consumers. It may be advantageous for certain types of analysis to ascertain separately the shares of wholesale trade enterprises' turnover to these particular groups of users. The following performance indicators can be calculated:

- (a) ***Percentage share of turnover to retailers.*** This share corresponds to the traditional scheme producer → wholesaler → retailer → consumer.
- (b) ***Percentage share of turnover to professional users (wholesalers, others).*** The wholesalers may form a complex distribution network involving several wholesalers prior to the final user.
- (c) ***Percentage share of turnover to final consumers.*** This corresponds to a secondary activity of the wholesalers, acting in a retail capacity.

5.32. These performance indicators form together an exhaustive breakdown of wholesale trade turnover from trading activities of purchase and resale. The shares shall be calculated on the basis of turnover from trading activities of purchase and resale only (item 5.1.2).

### ***Structure of retail trade purchases***

5.33. This performance indicator, describing the supply network of retail trade, is an approximation made by the retailer to assess the share of direct purchases from producers, wholesalers and through purchasing groups. The share of purchases shall be calculated on the basis of purchases of goods and services for resale in the same condition as received (item 4.5). An important shortcoming of this indicator is that the shares may not correspond to the total purchases of the retailer for resale (item 4.5). They may not include, for example, the purchases from other retailers, if any and purchases from private users.

### ***Accounts receivable (Balances outstanding at the end of the year on instalment and charge account)***

5.34. Retail accounts receivable are defined as the amounts of the credits, extended by retail stores to their customers for purchases made, outstanding as of the end of the reference period. Accounts receivable include amounts outstanding from consumer receivables such as (i) credit arising from retail sales of passenger cars and other vehicles; (ii) retail credit that is extended on a credit-line basis and that arises from the sale of consumer goods other than passenger cars and other vehicles; and (iii) other consumer receivables, i.e. all credit arising from retail sales of non-motor vehicle consumer goods that is not extended under a revolving credit line. The item excludes the amounts charged on credit cards issued by banks or other issuing credit cards organizations.

### ***Number of retail stores***

5.35. This is the total number of retail stores operated by an enterprise, either owned or rented. Stores are defined as fixed sales premises which the customers enter to make their purchases.

### ***Number of fixed market stands and/or stalls***

5.36. This covers the total number of fixed market stands and/or permanent stalls operated by an enterprise, either owned or rented. Contrary to stores, the customers do not usually enter the sales premises of the stands/stalls to make their purchases.

## **E. How to interpret the performance indicators**

5.37. Performance indicators are not absolute numbers, they acquire meaning in the context of comparison and analysis. Comparison with other measurement indicators puts the performance of a unit, or a sector, into perspective; analysis leads to an understanding of the factors for a given level of performance.

5.38. In using the performance indicators for comparisons, care should be taken to ensure that the units or phenomena are alike enough to compare, or at least that the differences are made explicit. It is not very meaningful, for example, to compare performance of a small specialized shop with that of a large department store. Further, in cases when performance indicators are expressed as ratios between two or more data items from those listed in the previous chapter, consistency of their definitions and coverage should be ensured.

5.39. The performance indicators are best used to gauge the overall performance of distributive trade sector (or any other sector of the economy), its structure or ongoing processes, therefore, it is recommended not to sacrifice this goal for the sake of a very detailed analysis and compilation of performance indicators of minor importance but requiring a lot of additional data. The purpose of performance indicators is to arrive at an understanding of the broad performance and trends of the trade business in a harmonized and internationally comparable manner.