Intra and Trans Statistics: requirements and parameters of Modern IT Platforms Review and new Paradigms

Discussion Paper

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Abstract

In the development of modern intra and trans statistic IT platforms, their algorithms, tools, software and interfaces the weakest link is a seamless integration between developing and existing IT platforms, supporting financial, organisational and human resource information management. Current practices show numerous examples of poor integrated IT platforms for border statistics and all solutions are fragmented, not ready for integration and significantly constrained in usability and applicability.
In practice there are no standard or developed technical specifications, protocols and registers regulating the data collection, processing, storage and transmission, which support cross-border IT platforms. Unfortunately, relevant authorities and institutions, which responsible for addressing these issues, do not exist, as well. In this particular case, the demand for harmonization and standardization of the most seeking statistical platforms increases, especially in Europe and Asian continents.
In this presentation, through the example of a creation of a single Eurasian Economic Space (EES), stimulating development at the borders of the EES (in addition to the hundreds of existing ones and currently developing more advanced forms of cooperation in Eurasian regions), we define the problems and determine the initial requirements and the basic parameters needed for design, construction and monitoring of seeking IT statistical platforms.

Keywords: Intra Border Statistics, Trans Border Statistics, IT platforms

1. Background

Essential condition for quality design of IT platforms and statistical databases is the exact definition of requirements and parameters of the observed systems, problems they are required to solve. For example, in statistics of border relations requirements include description or problems: reliable and relevant characterization of volume and flow of information for the preferred movement of goods, services, capital, labor and other assets generated within effective and successful bordering enclaves. In the report the problem and solution of these problems are illustrated by the example of mutual cross-border ties formation of member countries of the Customs Union, which includes Russia, Belarus and Kazakhstan, and closely cooperating neighboring countries.

During a relatively short period of time some positive results have been achieved due to the authorized bodies of the Eurasian Economic Area (EEA) and the Customs Union (CU) active engagements in the development of integrated platforms for Eurasian border statistics in general and bilateral trade statistics.

The vital methodological platforms have been developed and implemented for unified formation of intra-and cross-border data, which received international recognition.

Documents include:

Common methodology for customs statistics, and statistics of bilateral trade of member countries of the Customs Union (2011).

Common classificators of standard systems, algorithms, modes, procedures, documentary forms of accounting and monitoring of flows in bilateral trade of the Customs Union member countries of (47 qualifiers).

Forms for statistical observations of bilateral trade of member countries of the Customs Union (without GTE).

Forms of statistical monitoring and reporting on duty (penalties, interest, compensation payments, etc.) member countries of the Customs Union.

System for indexation and monitoring for cross-border trade of the Customs Union member countries .

The methodology and questionnaire survey were produced to assess an efficiency of automated information systems monitoring mutual trade of the Customs Union member countries.

Number of quarterly and annual statistical bulletins was released presenting results of external and mutual trade of the Customs Union member countries in 2011.

As a result of implemented measures the level of discrepancies in the estimates of the totals of mutual trade between Belarus and Russia has been reduced from 16% in 2005 to 5% in 2011 to, and from 45 to 15% between Kazakhstan and Russia.

However, in 2011, in connection with Rosstat rejection to form statistics on bilateral trade data Belorussia and Kazakhstan and transition to own database, established on their own form of the federal statistical survey (form № 1-TC), the level of discrepancy between the observed autonomous estimates increased to unacceptable figures (see Appendix 4). Taking this into account Russia was enforced to renounce use of a new form and return to the form previous form of accounting and measurement of the volume and flow of trade.

There is no conclusive evidence that the notification procedure, used for estimation of volumes and flows of bilateral trade of the Customs Union member countries is the right one. But there is even less smaller observed evidence in favor of the Russian form Conclusion sources.

2. Discussion

Current practices show numerous examples of poor integrated IT platforms for border statistics and all solutions are fragmented, not ready for integration and significantly constrained in usability and applicability [4]. There are no standard or developed technical specifications, protocols and registers regulating the data collection, processing, storage and transmission, which support cross-border IT platforms.

Unfortunately, relevant authorities and institutions, which responsible for addressing these issues, do not exist, as well. In this particular case, the demand for harmonization and standardization of the most seeking statistical platforms increases, especially in Europe and Asian continents [2, 5].

In our presentation, through the example of a creation of a single Eurasian Economic Space (EES) [1], stimulating development at the borders of the EES (in addition to the hundreds of existing ones and currently developing more advanced forms of cooperation in Eurasian regions), we will discuss the mentioned problems and show essential initial requirements and the basic parameters needed for design, construction and monitoring of seeking IT statistical platforms.

In the development of modern intra and trans statistic IT platforms, their algorithms, tools, software and interfaces the weakest link is a seamless integration between developing and existing IT platforms, supporting financial, organisational and human resource information management [3]. Therefore, broad discussion and funding of research efforts are needed to find an appropriate solution for modern IT platforms, which effectively support intra and trans border statistics. We believe that our contribution to the solution [1] is a step in the right direction.

3. Information sources

Appendix 1. (34 pages): Review of the Eurasian integration of mutual trade, illustrating the objective necessity of adjusting in accordance with the proposals.

Appendix 2. (4 pages): A list of existing international statistical standards, recommended for use in the Statistics Department of Eurasian Economic Committee (EEC).

Appendix 3. Schemata and tables of relationship sets indicators of the levels, the pace, the proportions of key clusters of socio-economic development of the SES.

Appendix 4. The discrepancies in the estimates of the volume of bilateral trade SES arising from incomplete and unreliable data obtained on the basis of the notification type declaration of traders and a unified statistical accounting of mutual trade form proposed by the Russian Federation

4. References

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