



Deliverable 3.1

DEVELOPMENT OF STANDARD FORMAT FOR THE MEASUREMENT INSTRUMENTS

Publishable summary

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Summary details

The difficulty and challenge of METPEX lies in the aim of systemising and standardising the passenger satisfaction survey procedure by developing adaptable and adjustable measurement tools to be used by operators and any other interested partners.

Based on reviews of D2.3 and D2.4, a standardised research template has been prepared which can be used by all versions of the tools. This template contains a set of research questions, resulting from the analysis of the results of D2.3, and the authors' interpretation of these results. The research questions will be adapted and elaborated in subsequent stages of the project into specific research tools (questionnaire, semi-structured interviews, focus groups, self-completion questionnaires, e.g. paper-based; on-line, METPEX app).

Purpose

The purpose of Task 3.1, entitled "Development of standard format for the measurement instruments" is the development of a standardised template that will form the basis of all versions of the tools, based on the requirements and specifications of WP2. This template should be able to support the design process of a satisfaction measurement survey.

The selected approach for the template's production included 3 key steps: a) the development of an original rating system that informs on the most critical variables to be examined in a satisfaction measurement survey, b) the re-organisation of the variables' list according to the order which the corresponding questions should appear in satisfaction measurement surveys, and c) the transformation (wording) of variables into satisfaction measurement questions.

The deliverable describes these three key steps and concludes with the template which is also accompanied with a series of useful remarks and comments.

Findings and Recommendations

A certain process of steps is proposed to be performed so as to design the content of each experience/ satisfaction measurement tool:

1. Selection of the trip mode. When the trip mode is selected, the variables which are rated with “0” (none relevance at all) for this trip mode will be excluded.
2. Selection of the satisfaction measurement tool. When the tool is decided, the variables that have been rated with “0” (considered as irrelevant) for this tool are excluded. This means that they will not be considered anymore as possible questions for the measurement tool design.
3. Designing the experience measurement tool based on the variables’ rating: Once the trip mode and the satisfaction measurement tool have been decided, the survey planner can shape the contents of the tool by consulting the rating values. First, he/she should add the variables scoring 3, and afterwards if there is any possibility (or wish) to add additional variables, he/she continues by first selecting from the set of variables that have been rated with 2 and then from the set of variables which have been rated with 1. This design process enables the public transport actors to determine the desired length of their tools and also ensures that the most important service aspects are always included.

If a survey is being especially designed to measure the satisfaction of certain travellers’ groups, then the ratings of the variables in the “travellers’ group” criterion should be given priority in combination with the ratings of the other two criteria (“trip mode” and “tool”). This way, a variable that may not be considered to be of high priority in general, could be finally included in the tool design, if it is crucial for the particular target group that is to be examined.

In conclusion, the variables’ ratings per criterion enable the gradual “filtering” of the extensive METPEX list of variables and the selection of the ones that are more useful according to the survey’s restrictions and available resources.

Method

The methodological steps for template’s production, in the order of their execution, were:

1. Identification of the most crucial criteria that determine the satisfaction measurement survey’s characteristics.
2. Definition of the variables’ rating system to be applied for the identified criteria.
3. Ranking the variables by assigning appropriately rates/ values to the variables list derived from D 2.4 (by METPEX partners). The ranking rates against the criteria comprise the “identity” of each variable/ question, since every rate expresses the relative level of priority assigned according to a certain criterion.
4. Critically review and consider the variables list derived from D 2.4 for possible comments and remarks, rejection or inclusion of variables, re-organisation of sequencing and divisions to avoid duplication and confusion.
5. Preparation of a generic template and wording/ question form for each variable based on the adjusted list, including alternative versions of

wording in case of significant differentiations required for each METPEX tool to be used.

It was considered that every traveller/ passenger experience/ satisfaction survey will vary according to the following three (3) factors:

1. the type of measurement tool: (a) Computer based application, (b) Web based questionnaire, (c) Semi-structured questionnaire and (d) Focus group protocol
2. the trip mode for which the experience/ satisfaction is measured: (a) Public Transport road vehicles, (b) Public Transport rail vehicles, (c) bicycle, (d) private car and (e) pedestrians
3. the target group of travellers: (a) women, (b) travellers with children, (c) commuters & employed, (d) low income, (e) elderly, (f) mobility restricted & disabled, (h) young people and (i) tourists-visitors.

The ratings' differentiation among the measurement tools relies on their special attributes, the time in which they will be completed, the optimum duration needed for the completion of the survey and the special users' characteristics.

The rating values (1-3) which appear in the columns of (a) measurement tool and (b) trip mode have been determined by:

- a. the results of the pilot survey in Deliverable 2.3 (correlation tables in Annex 4),
- b. the specific design characteristics of each tool, and
- c. expert appraisal of 4 independent raters from the project (internal expert decision process: experts coming from TERO and COVUNI).

The rating values (1-3) for the column "travellers' group" have been determined based on the main characteristics and needs of each travellers' group which were identified and described in the D2.3.

Results

The variables derived from D2.4 were critically reviewed and re-organised in order to avoid any duplication, overlap or ambiguity. The initial variables' list was restructured into SECTIONS. Some variables were added and some rejected (to avoid duplication and overlap). In some cases, the wording of variables changed or they were rephrased. The structure of the general template consists of the following five sections:

- SECTION 1: Prerequisite data for identifying the characteristics of the journey and first reaction on the whole journey experience
- SECTION 2: Journey experience stage by stage
- SECTION 3: Further reaction on overall assessment of whole journey experience and political and environmental aspects
- SECTION 4: Socio – economic data
- SECTION 5: Record details: reporter's details and details of the specific report.

Conclusion & Opportunities for Further Research

Based on the template, any survey designer can edit and manage the survey's variables and questions preparing an ordinary unique survey tool. This contributes towards automating the design process, enabling the easy selection of possible questions from the question-base and the alternative wording and scaling options.

In task 3.2 the template will be further specialised for each measurement instrument in the framework. The specification of the wording will be based on the special attributes of each measurement instrument to be investigated and described in details, taking into account the views and the technological potential and capabilities of the METPEX partners (particularly concerning the "Computer based data gathering application" and the "Online-structured interviews").