



Greek Tax Agency Benchlearning and Evaluation Project

Deliverable D.9 "Mystery User
Methodology: Implementation
and Results Analysis"



Project Title: Greek Tax Agency Benchlearning and Evaluation Project

Deliverable: D.9 "Mystery User Methodology: Implementation and Results Analysis"

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TABLE OF CONTENTS

1.	Introduction.....	4
2.	'Mystery User' Methodology principles and implementation	5
2.1.	Key principles and goals	5
2.2.	Selection of electronic service.....	5
2.3.	Sample	6
2.4.	Implementation procedures and stages.....	8
3.	Presentation of results.....	10
3.1.	Results of users evaluation	10
3.2.	Experts evaluation results	16
4.	Data re-elaboration and analysis.....	17
4.1.	Re-elaboration of data from users questionnaires and input	17
4.2.	Re-elaboration of data from expert evaluation by consultants team.....	25
5.	Interpretation and recommendations	27

1. Introduction

This report represents deliverable D.9, that is to say the illustration of the implementation and the analysis of the results of the Mystery User Methodology (henceforth simply MUM), following the methodological principles, steps, questionnaire and other parameters already described in deliverable D.8.

While related to the general field of impact measurement and evaluation, the MUM can be considered as a separate and monographic add on with respect to the rest of this benchlearning project.

In fact, while the benchlearning involved a comparative analysis of three different cases (Greece, Italy and Finland), the MUM focused only on the Greek case. Moreover, the indicators calculated for the benchlearning cases on Tax Agencies internal data for efficiency and addressed the effectiveness impact on users indirectly, again by way of using internally recorded data and supporting estimates. The difference of the MUM is that its evaluation is entirely based on the direct input received in real time by users as they use the e-service object of evaluation.

On the other hand, despite this peculiarity, also MUM can be seen in close relations with the general framework inspiring this project, that is to say the eGEP Measurement Framework. As a matter of fact, MUM is an innovative way to address one of the indicators of eGEP, namely the one on users' satisfaction.

It must be stressed, actually, that the idea of the Observatory for the Greek Information Society and of the General Secretariat for Information Systems to evaluate the Greek Tax Online Services by direct involvement of real users is a very important one and has been implemented using for the first time in Europe the Mystery User Methodology to eGovernment services.

In agreement with GSIS, MUM was applied focussing on online individual tax declaration that is form E1 (this choice is explained later in par. 2.2). This electronic service is provided through the official web portal of GSIS which operates under the Ministry of Economy and Finance and is one of the many available TAXISnet services for citizens and businesses.

This choice is justified by the sheer quantitative relevance of individual income tax declarations in general (5.5 million forms submitted yearly), and also by the fact that online submission of E1 forms has been steadily growing in the past few years.

The reminding of this document is structured as follow. In chapter 2 we synthetically recall the basic principles and implementation procedures already described in deliverable D.8 and we illustrate the composition of the sample of the users involved in the implementation.

The actual results of the implementation are presented in the tables of Chapter 3 with little comments and analysis, so to say as the raw data produced. In chapter 4 the data are re-elaborated using an evaluation scale to aggregate them and help interpret the results.

The final interpretation of results and formulation of recommendation is provided in chapter 5.

2. 'Mystery User' Methodology principles and implementation

2.1. Key principles and goals

We briefly recall here the key principles and goals of applying the MUM for a user's centric evaluation of online services.

MUM is a form of participative evaluation in which citizens as users of the services are brought in as active players of the evaluation process. In this respect, MUM differs from traditional users satisfaction survey carried out through telephone interviews, where the users play only a passive role.

First, individuals responding to telephone surveys express evaluations often based on pre-judgments and expectations rather than on the actual usage and experimentation of services, In fact they may respond to the questions month after they have used the services under evaluation for the last time. Second, telephone surveys are not participative in that they are based on questionnaire shaped top down with no space for direct and open text input from the respondents.

MUM goes beyond these two limits by a) gathering evaluation from users in real time, that is as they perform a set of tasks needed to use the service under evaluation; b) using both a structured questionnaire and by gathering the free and unstructured comments and inputs from the users.

While the MUM cannot be based on a representative sample as is the case for telephone based users satisfaction surveys, it has the great advantage of being based on evaluation made just after using a services and so it rules out many of the subjective bias of telephone surveys (users responding on the basis of pre-judgment and expectations rather than the actual experience of using online services).

The MUM was applied to the evaluation of E1 forms following the above described principles and approach (for more details please refer to D.8)

2.2. Selection of electronic service

The selected service for the MUM implementation is the submission of the income declaration tax form or "E1" form. This electronic service is provided through the official web portal of

GSIS which operates under the Ministry of Economy and Finance and is one of the many available TAXISnet services for citizens and businesses.

This choice is justified by the sheer quantitative relevance of individual income tax declarations in general (5.5 million forms submitted yearly), and also by the fact that online submission of E1 forms has been steadily growing in the past few years.

E1 declaration form has been available electronically since 2002 and recently it has been redesigned to be submitted along with other declarations, such as E9 for amendments in real estate property, to facilitate citizens in saving time.

So the pool of potential users of E1 form is the largest one and at the same time an important share of the tax income derives from this specific service.

2.3. Sample

As stated ever since our Tender Offer and repeated in accepted deliverable D.8, MUM raise no claim to classical statistic representativeness and is not based on a random sample selection as is the case of telephone based survey.

The aim of MUM is to gather more in depth and reliable quantitative and qualitative input from a limited number of carefully selected users, and not to produce generalization on the all population of users.

The size of the sample is by necessity small and our choice of involving a total of 30 users is perfectly online with the practice of other participatory techniques (i.e. usability test) where the sample size ranges from a minimum of 12 users to a maximum of 35-40.

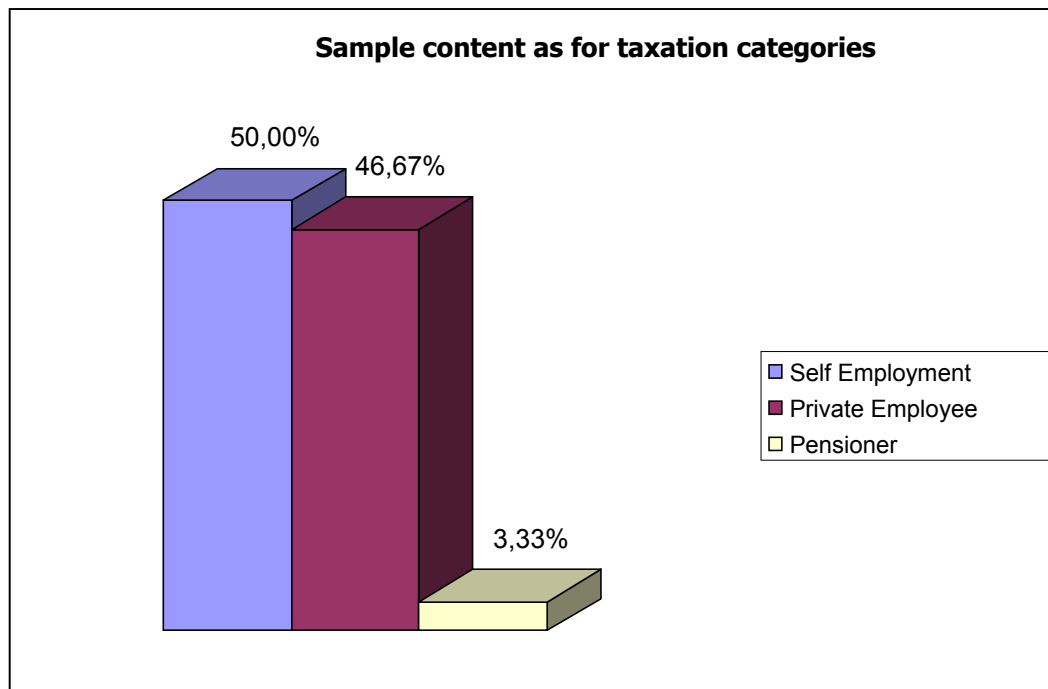
The sample has been selected in a stratified fashion as to capture, even within such a small number, all the possibly relevant dimensions.

First of all, the 30 selected users cover all of the different types of individual tax payers (employees, self employed, pensioners) as illustrated in the exhibit overleaf.

Table 1: Sample content by tax obligation type

Tax Obligation Type	Frequency	Percentage
Self Employed	15/30	50,00%
Private Employee	14/30	46,67%
Pensioner	1/30	3,33%

Exhibit 1: Sample content as for taxation categories



Second, the selection of the users aimed at covering in a balanced way the following characteristics, summarized in the table overleaf:

- Gender,
- Age,
- Type of individual tax payer
- Educational Level,
- PC familiarity,
- Place of Internet Use,
- Knowledge of TAXISnet existence,
- History of E1 declaration form (during 2006)

Table 2: Concentrated Statistical Facts of Sample

Characteristic	Frequency	Percentage
Gender		
Man	16/30	53,33%
Woman	14/30	46,67%
Age		
18 – 30	6/30	20,00%
31 – 45	16/30	53,33%
46 +	8/30	26,67%
Natural Person		
Pensioners	1/30	3,33%

Self Employed	6/30	20,00%
Private Employee	11/30	36,67%
Civil Servant	3/30	10,00%
Accountant	4/30	13,33%
Entrepreneur (i.e. tradesman)	5/30	16,67%
Level of Education		
Primary School	1/30	3,33%
High School	10/30	33,33%
Graduate	11/30	36,67%
Postgraduate	8/30	26,67%
Computer Skills		
Negligible / None	5/30	16,67%
Occasionally	6/30	20,00%
Extensive	19/30	63,33%
Place where Internet is being used		
House	6/30	20,00%
Work	19/30	63,33%
Other	0/30	0,00%
Knowledge of TAXISnet existence		
Yes	21/30	70,00%
No	9/30	30,00%
History of E1 submission (last year of report / 2006)		
Standard (Completion in person)	6/30	20,00%
Standard (through an accountant)	16/30	53,33%
Electronically	8/30	26,67%

2.4. Implementation procedures and stages

The implementation procedures, stages and the description of the tasks assigned to the users and the corresponding questionnaires have all been already described in detail in deliverable D.8. Below, thus, we briefly summarise them.

The selected users were assigned a number of tasks to perform for the usage of the service object of evaluation. As they try and perform these tasks, they filled in a semi-structured questionnaire by themselves in real time.

Given the characteristics of the service under evaluation there were five steps/tasks. Every step is a task which the user has to complete in order to move to the next one. The final goal was to submit the E1 form online. In order to reach this goal each user had to:

- **Locate E1 (income declaration) Service**, user must find how to access the E1 service
- **Logging in E1 service**, user must key in a username and password in order to enter the E1 service
- **Locate the E1 form for completion**, user must define which form he/she will fill in.
- **Complete the E1 form**, user must fill in the E1 declaration form.
- **Form Submission**, user must submit the form he/she has just filled in.

So the semi-structured questionnaire addressed each one of these five steps/tasks.

The users were also requested to provide a general evaluation of the all procedure of completing and submitting "E1" "Form" in terms of:

- **navigation**
- **user control**
- **language and content**
- **online help and user guides**
- **system and user feedback**
- **consistency**
- **architectural and visual clarity**

Additionally, besides filling in the mentioned semi-structured questionnaire, users could also provide free text comments and inputs.

Finally, as an integration to the users evaluation, an expert based evaluation was also produced by having the consultants of the Bridge-it team appraise the service and filling in an ad hoc questionnaire.

The actual results of this process are presented in the tables of next chapter with little comments and analysis, so to say as the raw data produced.

In chapter 4 the data are re-elaborated using an evaluation scale to aggregate the data and help interpret the results.

The final interpretation of results and formulation of recommendation is provided in chapter 5.

The re-elaboration of the data will be carried out in five steps, one for each of the five tasks earlier described and for their corresponding section of the questionnaire

The re-elaboration and analysis of the data is presented instead in Chapter 4, where it will be explained how an evaluation scale has been applied to aggregate the data and help interpret the results.

3. Presentation of results

3.1. Results of users evaluation

Below tables with results are presented for each of the five steps/tasks illustrated earlier.

For questions that has not been answered the abbreviation is NA: Not Answered

For questions that the answers where unknown by users the abbreviation is U: Unknown

1st Task: Locate E1 (income declaration) Service

Table 3: 1st task's questionnaire

1st task's questionnaire	1	2	3	4	5	NA
Are there different ways to reach the E1 service? 1=One way, 5=Many ways	36,67%	16,67%	6,67%	6,67%	33,33%	0,00%
Was it difficult to locate the service? 1=Difficult, 5=Easy	3,33%	16,67%	30,00%	40,00%	10,00%	0,00%
Were the colors, fonts, font size easy to read? 1=Difficult, 5=Easy	3,33%	13,33%	23,33%	36,67%	23,33%	0,00%
When you found the E1 web page how sure were you that you are at the correct service? 1=Not sure, 5=Absolutely sure	0,00%	3,33%	6,67%	30,00%	60,00%	0,00%
Front page's degree of interest (makes you want to find out what the other services do) 1=Boring, 5=Interesting	0,00%	23,33%	43,33%	26,67%	6,67%	0,00%
While locating the service did you read something perhaps new and interesting regarding TAXISnet services? 1=Nothing at all, 5=Many things	3,33%	10,00%	16,67%	40,00%	30,00%	0,00%
	No	U	Yes	NA		

Does your browser support the GSIS front web page?	0,00%	0,00%	96,67%	3,33%
Is help provided in the home page of GSIS? (perhaps with FAQ).	3,33%	6,67%	90,00%	0,00%

Step 1: Remarks Locating the service through the www.taxisnet.gr page (which was the page used previously) is confusing.
The service (E1) location is at a very noticeable place within the page.
The home page has a lot of useful information.

One can access the E1 service through four different paths. Three of the ways are through the GSIS page (www.gsis.gr) and one from the prior existing webpage www.taxisnet.gr.

2nd Task: Logging in E1 service

Table 4: 2nd task's questionnaire

2nd task's questionnaire	1	2	3	4	5	NA
Are there different ways to reach the log in state? 1=One way, 5=Many ways	76,67%	20,00%	0,00%	0,00%	0,00%	3,33%
Were the colors, fonts, font size easy to read? 1=Difficult, 5=Easy	3,33%	13,33%	23,33%	36,67%	23,33%	0,00%
Are error messages in clear language? 1=Not clear, 5=Very clear	0,00%	10,00%	53,33%	6,67%	30,00%	0,00%
	No		U	Yes	NA	
Was it difficult to locate the log-in link?	3,33%		0,00%	96,67%	0,00%	
The page provides instructions for logging in (entry format)	86,67%		13,33%	0,00%	0,00%	
The error messages describe a remedy to the unsuccessful log in?	3,33%		50,00%	46,67%	0,00%	
Error messages provide a clear exit point?	0,00%		3,33%	96,67%	0,00%	

After keying in your personal data does it take long time to validate them?	0,00%	0,00%	100,00%	0,00%
Does your browser support the log-in web page?	0,00%	0,00%	96,67%	3,33%
Is help provided in the log-in page of E1? (Perhaps with FAQ).	90,00%	10,00%	0,00%	0,00%

Task 2: Remarks In many sites when you login and give your password in capitals there is a warning message saying: "perhaps you want to turn off Caps Lock".

3rd Task: 'Locate the E1 form for completion'

Table 5: 3rd task's questionnaire

3rd task's questionnaire	1	2	3	4	5	NA
Was it difficult to locate E1 declaration? 1=Difficult, 5=Easy	3,33%	16,67%	30,00%	40,00%	10,00%	0,00%
When you found the E1 declaration web page how sure were you that you are at the correct service? 1=Not at all, 5=Absolutely	0,00%	0,00%	0,00%	13,33%	86,67%	0,00%
	No	U	Yes	NA		
Are there different ways to reach E1 declaration form?	80,00%	6,67%	3,33%	10,00%		
Did you have to read the instructions to understand what you have to do in order to submit a new form?	70,00%	26,67%	3,33%	0,00%		
Is help provided in the e1 declaration page? (Perhaps with FAQ)	90,00%	10,00%	0,00%	0,00%		

Task 3: Remarks It was not possible to have a simultaneous appearance on the screen of the "form" for completion and the corresponding "form" of a previous year, as a guideline for the completion of the fields.

4th Task: Complete the E1 form

Table 6: 4th task's questionnaire

4 th task's questionnaire	1	2	3	4	5	NA
Is the language used simple? 1=Complicated, 5=Simple	3,33%	30,00%	33,33%	26,67%	6,67%	0,00%
Were the colors, fonts, font size easy to read? 1=Difficult, 5=Easy	3,33%	13,33%	23,33%	36,67%	23,33%	0,00%
Is the form designed to require minimum help and instructions? 1=Lot of help, 5=Minimum	0,00%	50,00%	40,00%	6,67%	3,33%	0,00%
	No		U	Yes	NA	
Will the required data be entered only once?	0,00%		0,00%	100,00%	0,00%	
Do you have to wait long for the form to load?	0,00%		3,33%	96,67%	0,00%	
Is help provided while completing the form?	90,00%		10,00%	0,00%	0,00%	
Do error messages describe actions to remedy the problem?	3,33%		13,33%	83,33%	0,00%	
Did you have to read the instructions to understand how to complete the form?	70,00%		26,67%	3,33%	0,00%	

Task 4: Remarks An "extremely fast downloading" of the form was mentioned from the users who had previously used the service from their home, which is logical since the General Secretariat for Information Systems for the application of the MUM methodology uses large bandwidth. The pre-completed fields does not relate to financial amounts.

The assistance provided, through information, during the completion, refers mostly on technical matters (choices of typing etc.) and not in matters of taxes.

5th Task: Form Submission

Table 7: 5th task's questionnaire

5 th task's questionnaire	1	2	3	4	5	NA
Do you have to wait long for the form to be sent? 1=Long time, 2=Short time	0,00%	3,33%	10,00%	13,33%	73,33%	0,00%
How sure were you that the form was successfully sent? 1=Not at all, 2=Very sure	0,00%	0,00%	0,00%	13,33%	86,67%	0,00%

The following table reports users' answers to the requested general evaluation of the all procedure of completing and submitting "E1" "Form".

Table 8: General questionnaire completed by the users

Question	Answer		
	Yes	No	NA
NAVIGATION			
Site map is provided in the front page of GSIS	73,33%	16,67%	10,00%
Easy to use Search function is provided, as needed	40,00%	33,33%	26,67%
USER CONTROL			
User can cancel any operation	46,67%	33,33%	20,00%
Clear exit point is provided on every page	90,00%	0,00%	10,00%
LANGUAGE AND CONTENT			
Language is simple, without jargon	60,00%	36,67%	3,33%
Paragraphs are brief	93,33%	6,67%	0,00%
Terms are defined	56,67%	40,00%	3,33%
Related information or tasks are grouped: - on the same page or menu	43,33%	40,00%	16,67%

- in the same area within a page			
Links are concise, expressive, and visible--not buried in text	70,00%	26,67%	3,33%
ONLINE HELP AND USER GUIDES			
Help and instructions, if needed, are easily accessible	76,67%	13,33%	10,00%
SYSTEM AND USER FEEDBACK			
Confirmation screen is provided for form submittal	83,33%	13,33%	3,33%
Users are informed if a plug-in or browser version is required	6,67%	40,00%	53,33%
Each page includes a "last updated" date	0,00%	86,67%	13,33%
Computer Informs about progress of processing	26,67%	66,67%	6,67%
Users can give feedback via email or a feedback form	13,33%	63,33%	23,33%
Users can receive email feedback if necessary	80,00%	0,00%	20,00%
CONSISTENCY			
Is feedback informing sufficiently the user?	50,00%	43,33%	6,67%
Is the feedback consistent?	73,33%	3,33%	23,33%
ARCHITECTURAL AND VISUAL CLARITY			
White space is sufficient; pages are not too dense	40,00%	56,67%	3,33%
Colours used for visited and unvisited links are easily seen and understood	86,67%	3,33%	10,00%

REMARKS *Field NAVIGATION:* The access to the site map depends on the route that will be followed for the access to the service. The choice "search" is provided only on the home page of the General Secretariat for Information Systems.

Field SYSTEM & FEEDBACK: the contact "Communication" is not active on all web pages.

3.2. Experts evaluation results

During the entire procedure MUM implementation, the consultants comprising the team monitored each one of the 30 users involved in the evaluation. As a result, they observed the all process, and at the end they provided their own experts appraisal of the services. The table below summarises the results of such additional evaluation.

Table 9: General questionnaire completed by the project team

Question	Answer		
	Yes	No	NA
NAVIGATION			
Major/important parts of the site are directly accessible from the main page	√		
USER CONTROL			
Pages are loaded fast enough.	√		
All appropriate browsers are supported.	√		
ONLINE HELP AND USER GUIDES			
Site is designed to require minimal help and instructions.		√	
SYSTEM AND USER FEEDBACK			
It is always clear what is happening on the site -- visual hints, etc.	√		
CONSISTENCY			
Are the users' actions required consistent?	√		
ARCHITECTURAL AND VISUAL CLARITY			
Site design and layout is straightforward and concise.	√		

REMARKS User Control: If the service is accessed at home it is possible that the downloading speed might be slower since GSIS has very high bandwidth.
System and Feedback; The user does not get any feedback regarding the progress of a process.

User guides: On the home page of GSIS the rather extensive range of choices, information and links might distract the user's attention from finding the service.

4. Data re-elaboration and analysis

The previous chapter simply reported the results of MUM implementation as raw data. The next step presented in this chapter is the re-elaboration of such data in order to help their interpretation and provide the basis for a synthetic evaluation of the e-service under analysis and the related recommendations presented in next chapter.

The re-elaboration of the data will be carried out in five steps, one for each of the five tasks earlier described and for their corresponding section of the questionnaire. The re-elaboration has used a five level ranking, meaning that for every step the evaluation will be performed from an accumulation of the answers and a corresponding grading according to the following scale:

- Positively,
- Rather positively,
- neutral,
- Rather negatively,
- Negatively.

For those cases in which the user has not given an answer either because he/she was unable to comprehend the question or because he/she misinterpreted it, the corresponding question is recorded as 'unanswered' and is not evaluated.

4.1. Re-elaboration of data from users questionnaires and input

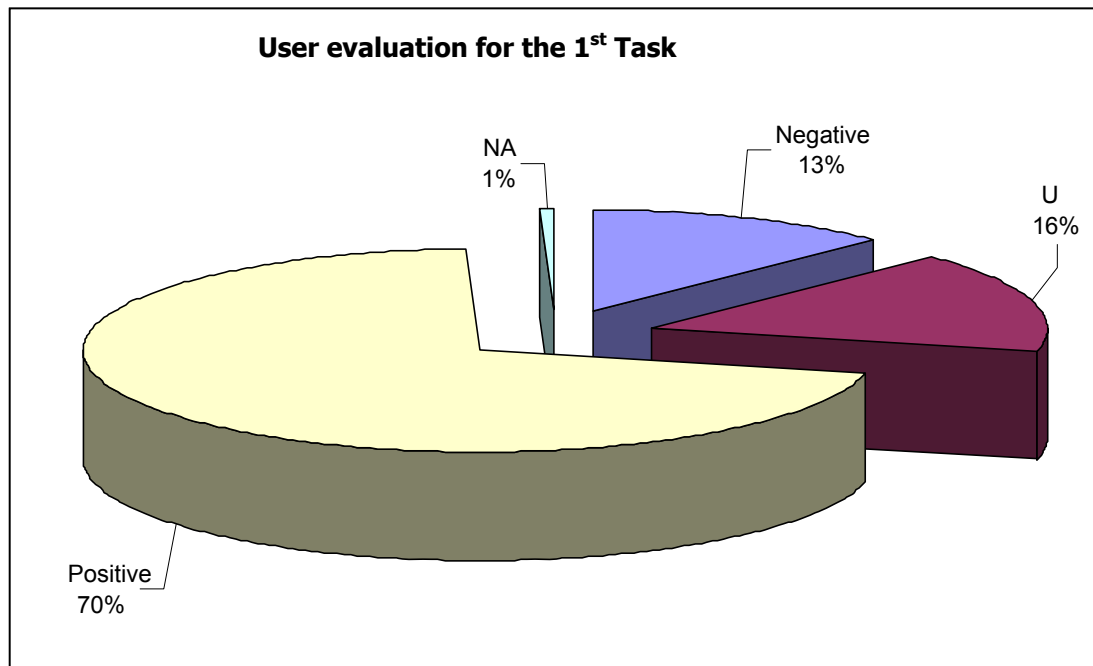
As already mentioned the questionnaire of each task is made out of a certain number of questions. The related answers to these questions form the overall evaluation of the service. However, not all questions are of the same significance. For this reason a weight factor (between 0 and 1) has been assigned to each question according to its importance in each task and in the evaluation of the overall procedure in general. The significance of each question along with the number of users that answered the questions is presented in the following tables.

1st Task: Locate E1 (income declaration) Service

Table 10: 1st task's questionnaire including weight factor (answers ranging: positive to negative)

1st task's questionnaire	Weight Factor	Negative	Unknown	Positive	NA
Are there different ways to reach the E1 service?	0,05	53,33%	6,67%	40,00%	0,00%
Was it difficult to locate the service?	0,20	20,00%	30,00%	50,00%	0,00%
Were the colors, fonts, font size easy to read?	0,10	16,67%	23,33%	60,00%	0,00%
When you found the E1 web page how sure were you that you are at the correct service?	0,20	3,33%	6,67%	90,00%	0,00%
Front page's degree of interest (makes you want to find out what the other services do)	0,10	23,33%	43,33%	33,33%	0,00%
While locating the service did you read something perhaps new and interesting regarding TAXISnet services?	0,05	13,33%	16,67%	70,00%	0,00%
Does your browser support the GSIS front web page?	0,15	0,00%	0,00%	96,67%	3,33%
Is help provided in the home page of GSIS? (Perhaps with FAQ).	0,15	3,33%	6,67%	90,00%	0,00%
TOTAL (%)	100,00%	12,50%	16,17%	70,83%	0,50%

Exhibit 2: User evaluation for the 1st Task



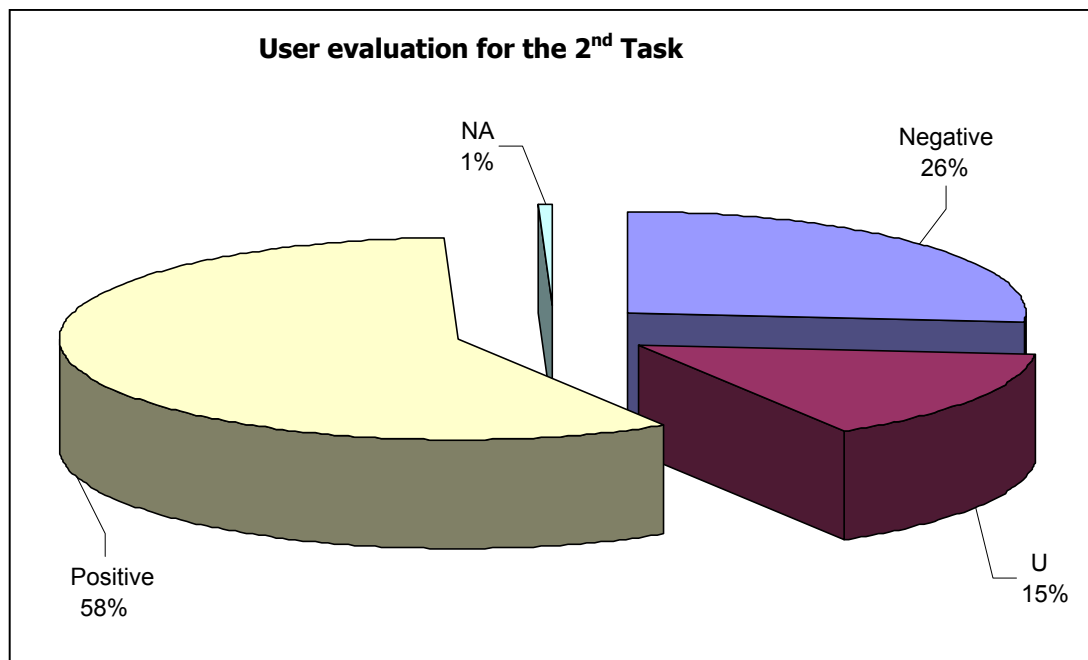
2nd Task: Logging in E1 service

Table 11: 2nd task's questionnaire including weight factor (answers ranging: positive to negative)

2 nd task's questionnaire	Weight Factor	Negative	Unknown	Positive	NA
Are there different ways to reach the log in state?	0,05	96,67%	0,00%	0,00%	3,33%
Were the colors, fonts, font size easy to read?	0,10	16,67%	23,33%	60,00%	0,00%
Are error messages in clear language?	0,10	10,00%	53,33%	36,67%	0,00%
Was it difficult to locate the log-in link?	0,20	3,33%	0,00%	96,67%	0,00%
The page provides instructions for logging in (entry format)	0,05	86,67%	13,33%	0,00%	0,00%
The error messages describe a remedy to the unsuccessful log in?	0,10	3,33%	50,00%	46,67%	0,00%
Error messages provide a clear exit point?	0,05	0,00%	3,33%	96,67%	0,00%

After keying in your personal data does it take long time to validate them?	0,05	0,00%	0,00%	100,00%	0,00%
Does your browser support the log-in web page?	0,15	0,00%	0,00%	96,67%	3,33%
Is help provided in the log-in page of E1? (Perhaps with FAQ).	0,15	90,00%	10,00%	0,00%	0,00%
TOTAL (%)	100,00%	26,33%	15,00%	58,00%	0,67%

Exhibit 3: User evaluation for the 2nd Task



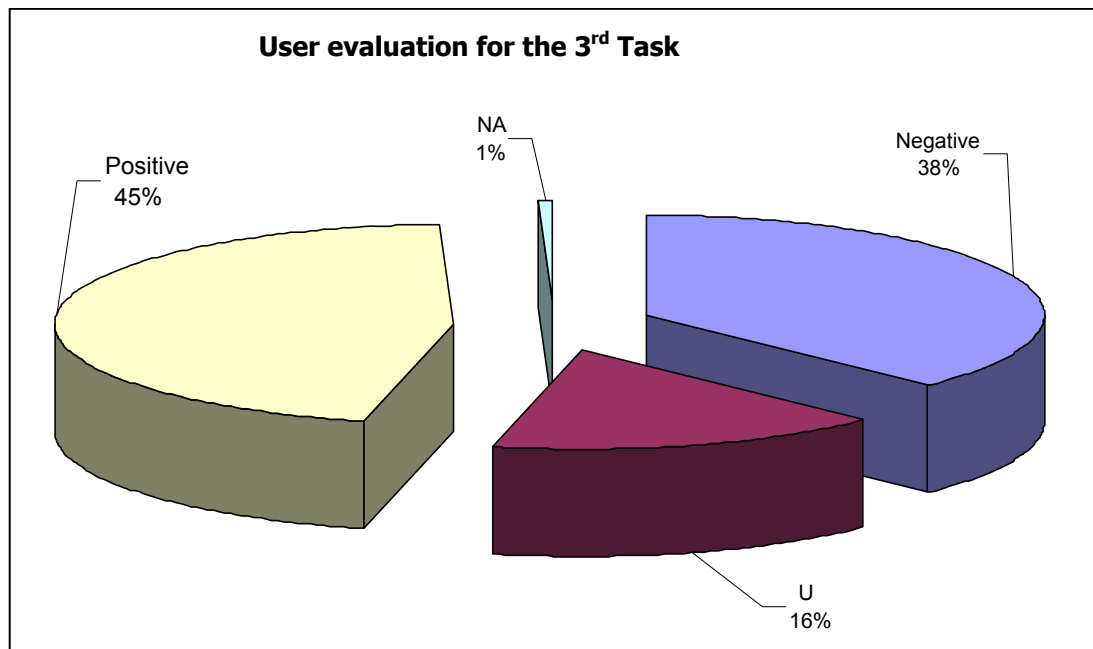
3rd Task: Locate the 'E1 form' for completion

Table 12: 3rd task's questionnaire including weight factor (answers ranging: positive to negative)

3rd task's questionnaire	Weight Factor	Negative	Unknown	Positive	NA
Was it difficult to locate E1 declaration?	0,30	20,00%	30,00%	50,00%	0,00%
When you found the E1 declaration web page how sure were you that you are at the correct service?	0,30	0,00%	0,00%	100,00%	0,00%

Are there different ways to reach E1 declaration form?	0,05	80,00%	6,67%	3,33%	10,00%
Did you have to read the instructions to understand what you have to do in order to submit a new form?	0,20	70,00%	26,67%	3,33%	0,00%
Is help provided in the e1 declaration page? (Perhaps with FAQ).	0,15	90,00%	10,00%	0,00%	0,00%
TOTAL (%)	100,00%	37,50%	16,17%	45,83%	0,50%

Exhibit 4: User evaluation for the 3rd Task



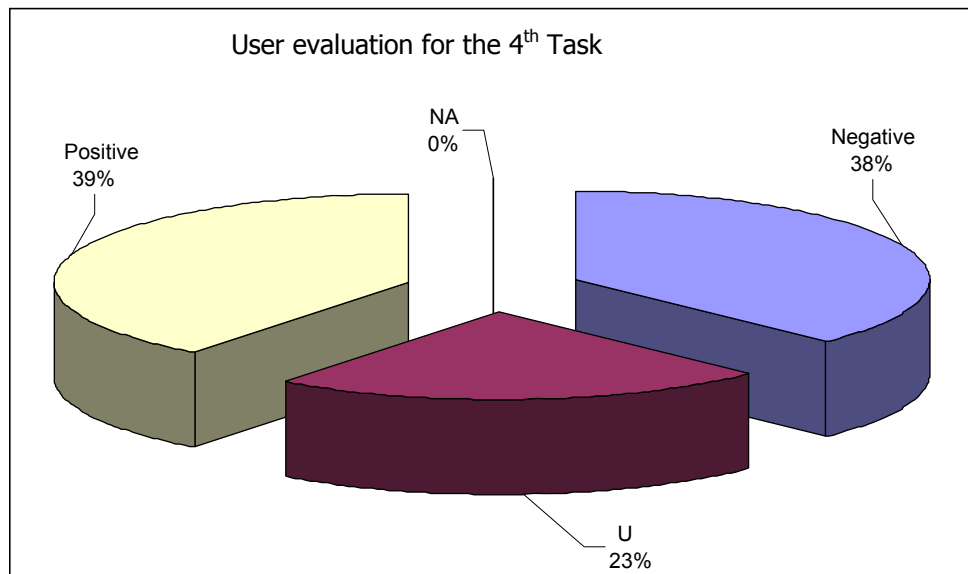
4th Task: Complete the 'E1 form'

Table 13: 4th task's questionnaire including weight factor (answers ranging: positive to negative)

4th task's questionnaire	Weight Factor	Negative	Unknown	Positive	NA
Is the language used simple?	0,10	33,33%	33,33%	33,33%	0,00%
Were the colors, fonts, font size easy to read?	0,10	16,67%	23,33%	60,00%	0,00%

Is the form designed to require minimum help and instructions?	0,25	50,00%	40,00%	10,00%	0,00%
Will the required data be entered only once?	0,10	0,00%	0,00%	100,00%	0,00%
Do you have to wait long for the form to load?	0,05	0,00%	3,33%	96,67%	0,00%
Is help provided while completing the form?	0,10	90,00%	10,00%	0,00%	0,00%
Do error messages describe actions to remedy the problem?	0,15	3,33%	13,33%	83,33%	0,00%
Did you have to read the instructions to understand how to complete the form?	0,15	70,00%	26,67%	3,33%	0,00%
TOTAL (%)	100,00%	37,50%	22,83%	39,67%	0,00%

Exhibit 5: User evaluation for the 4th Task

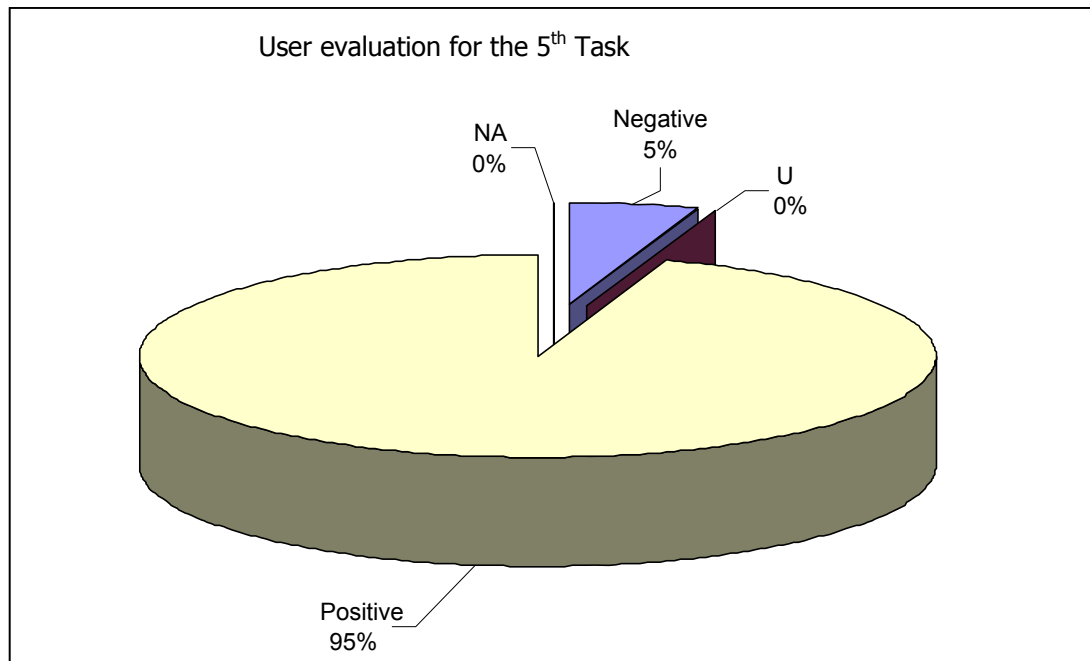


5th Task: **Form Submission**

Table 14: 5th task's questionnaire including weight factor (answers ranging: positive to negative)

5 th task's questionnaire	Weight Factor	Negative	Unknown	Positive	NA
Do you have to wait long for the form to be sent?	0,40	13,33%	0,00%	86,67%	0,00%
How sure were you that the form was successfully sent?	0,60	0,00%	0,00%	100,00%	0,00%
TOTAL (%)	100,00%	5,33%	0,00%	94,67%	0,00%

Exhibit 6: User evaluation for the 5th Task



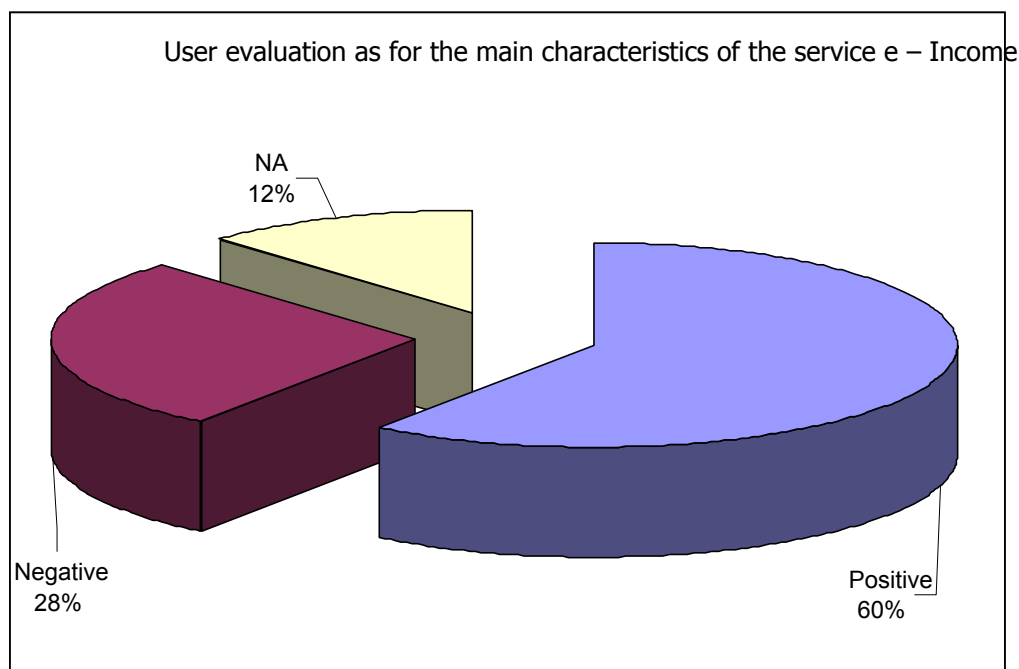
Regarding the questionnaire which refers to the general evaluation of the entire procedure of completing and submitting E1 online, the same procedure as before was used. In this case, the users evaluate the service through answers regarding general characteristics, which more or less, are common among all services regardless the agency or the target group.

Table 15: General questionnaire for the users including weight factor

Question	Weight Factor	Answer		
		Positive	Negative	NA
NAVIGATION	0,06			
Site map is provided in the front page of GSIS	0,03	73,33%	16,67%	10,00%
Easy to use Search function is provided, as needed	0,03	40,00%	33,33%	26,67%
USER CONTROL	0,10			
User can cancel any operation	0,05	46,67%	33,33%	20,00%
Clear exit point is provided on every page	0,05	90,00%	0,00%	10,00%
LANGUAGE AND CONTENT	0,40			
Language is simple, without jargon	0,10	60,00%	36,67%	3,33%
Paragraphs are brief	0,05	93,33%	6,67%	0,00%
Terms are defined	0,10	56,67%	40,00%	3,33%
Related information or tasks are grouped: - on the same page or menu - in the same area within a page	0,10	43,33%	40,00%	16,67%
Links are concise, expressive, and visible- -not buried in text	0,05	70,00%	26,67%	3,33%
ONLINE HELP AND USER GUIDES	0,10			
Help and instructions, if needed, are easily accessible	0,10	76,67%	13,33%	10,00%
SYSTEM AND USER FEEDBACK	0,22			
Confirmation screen is provided for form submittal	0,05	83,33%	13,33%	3,33%
Users are informed if a plug-in or browser version is required	0,05	6,67%	40,00%	53,33%
Each page includes a "last updated" date	0,02	0,00%	86,67%	13,33%
Computer Informs about progress of processing	0,02	26,67%	66,67%	6,67%
Users can give feedback via email or a feedback form	0,02	13,33%	63,33%	23,33%

Users can receive email feedback if necessary	0,06	80,00%	0,00%	20,00%
CONSISTENCY	0,04			
Is the feedback consistent?	0,01	50,00%	43,33%	6,67%
Same words or phrases are used in all parts to describe the same thing	0,03	73,33%	3,33%	23,33%
ARCHITECTURAL AND VISUAL CLARITY	0,08			
White space is sufficient; pages are not too dense	0,04	40,00%	56,67%	3,33%
Colours used for visited and unvisited links are easily seen and understood	0,04	86,67%	3,33%	10,00%
TOTAL (%)	100,00%	59,93%	27,77%	12,30%

Exhibit 7: User evaluation as for the main characteristics of the service e – Income



4.2. Re-elaboration of data from expert evaluation by consultants team

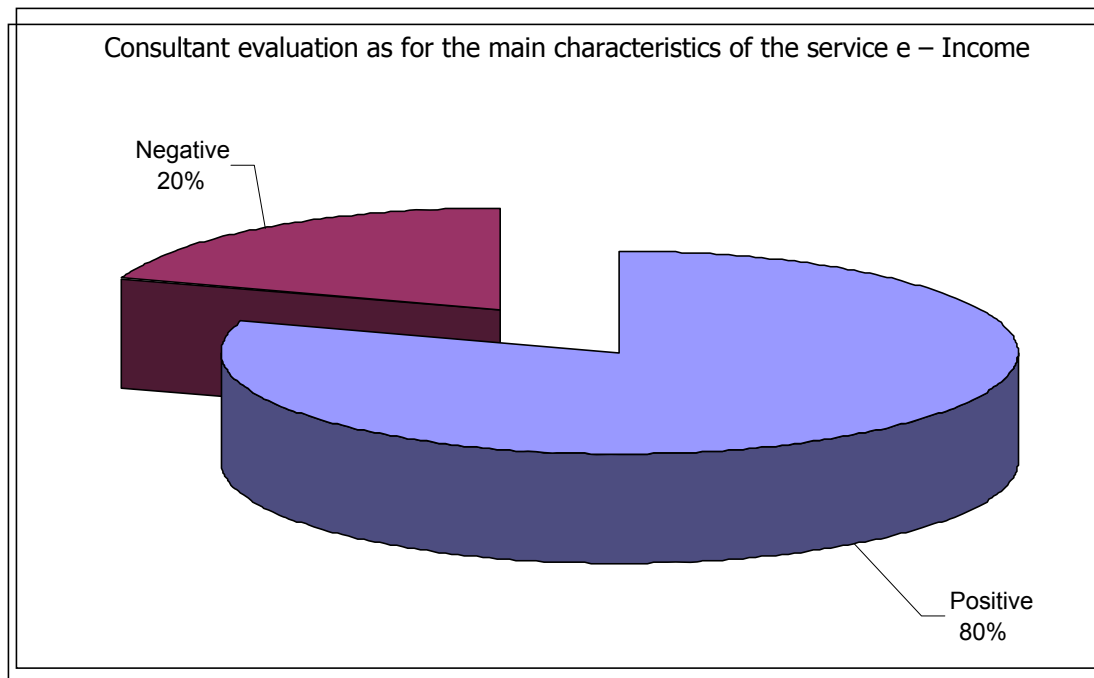
In this section the results of the consultant's' questionnaire are presented. In this questionnaire all the weight factors are levelled in a different way from the corresponding users' questionnaire since the evaluation criteria are different. The consultant's evaluation is performed from a more technical and sophistication level point of view since he/she is very

familiar with the service's use. For this reason the questionnaire that follows focuses on more technical aspects through which higher objectivity can be achieved.

Table 16: General questionnaire for the project team including weight factor

Question	Weight Factor	Answer	
		Positive	Negative
NAVIGATION	0,15		
Major/important parts of the site are directly accessible from the main page	0,15	15,00%	
USER CONTROL	0,20		
Pages are loaded fast enough.	0,10	10,00%	
All appropriate browsers are supported.	0,10	10,00%	
ONLINE HELP AND USER GUIDES	0,20		
Site is designed to require minimal help and instructions	0,20		20,00%
SYSTEM AND USER FEEDBACK	0,15		
It is always clear what is happening on the site -- visual hints, etc..	0,15	15,00%	
CONSISTENCY	0,20		
Are the users' actions required consistent?	0,20	20,00%	
ARCHITECTURAL AND VISUAL CLARITY	0,10		
Site design and layout is straightforward and concise.	0,05	5,00%	
Unnecessary animation is avoided.	0,05	5,00%	
TOTAL (%)	100,00%	80,00%	20,00%

Exhibit 8: Consultant evaluation as for the main characteristics of the service e – Income



A synthesis of the consultants' evaluation is the following:

- As far as Navigation is concerned there is plenty of material regarding instructions, news, critical dates for submission or search options and analytical site map guiding to all the electronic services;
- Page loading speed is sufficient regardless of the internet connection a user might have. This assumption is based on the fact that the GSIS web pages are not heavy (ranging between 100 - 250 kb). The service can be supported by all web browsers with the exception of Safari (web browser for Macintosh). Finally, when the service is accessed with the Mozilla Firefox browser a plug-in (Adobe Flash Player) is demanded;
- Regarding the system and the user feedback it was noticed that there are no indications while something is being processed, meaning that there are no calculating time bars or progress meters informing the user;
- Regarding the structure of the site it was noted that the information on the home page is rather extensive which might oblige some users to use the search function to locate the service or the information they are looking for.

5. Interpretation and recommendations

The conclusions after taking into account the aforementioned data will be stated in the direction of evaluating the usability and the level of sophistication of the services associating them with the use of Internet and the level of electronic services adoption from the Greek

citizens. Towards this direction the following data regarding Internet use and e-government taking on are presented intending to help the reader comprehend the conclusions reached after the questionnaires' analysis.

According to the General Secretariat of National Statistical Service of Greece¹, there is a significant growth in the use of Internet (28,9%) per household in comparison to 2005 (22,5%). Furthermore, according to a survey of the Observatory for the Greek Information Society² it was established that 40% of all the main services that the public sector provides are available online. However, only 8% of the population uses the online services to make transactions with the public sector and the online interaction is restricted to downloading information (4%), retrieving documents (4%) and submitting filled-in forms (3%). On the other hand businesses (especially with more than 10 employees) make extensive use of the online public services with the rate rising up to 71%.

From the statistical data that were just mentioned it is evident that although the provision of electronic services' percentage in Greece is quite high and similar to the European one and in spite of the fact that, one out of three citizens uses the Internet, the electronic services in Greece are for some reason not widely accepted by the Greek family.

¹ http://www.statistics.gr/gr_tables/S803_SFA_3_DT_AN_06_1_Y.pdf

² http://www.infosoc.gr/infosoc/el-GR/grafeiotypou/news/infosoc_news/news_greek/statistics_29-09-2006.htm

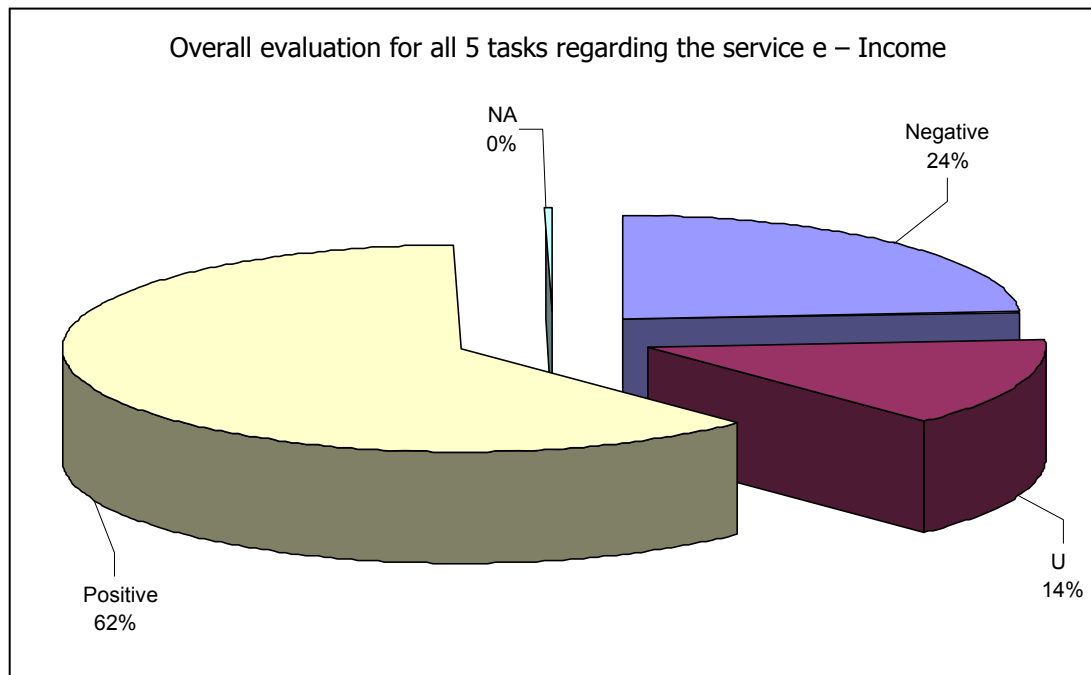
The electronic submission service of the annual income declaration through the 'E1 form' was evaluated applying the 'Mystery User Methodology' to a randomly selected sample of users. The user evaluation was made in two steps. The first one included the five tasks (locate service, log-in, locate form, fill in, and submit) where the users had to fill in the corresponding five questionnaires in real time while performing the tasks and the second part was an additional questionnaire where they were asked to evaluate some general characteristics of the service.

The assessment of the service was made according the five level ranking (positively, rather positively, neutral, rather negatively, negatively). The next step was to gather the results per question and reduce them to a proportional scale in order to evaluate every step as a whole.

Table 17: All tasks including weight factor and aggregated results

Task Name	Weight Factor	Negative	Unknown	Positive	NA
1°: Locate E1 (income declaration) Service	0,20	12,50%	16,17%	70,83%	0,50%
2°: Logging in E1 service	0,20	26,33%	15,00%	58,00%	0,67%
3°: Locate the E1 form for completion	0,20	37,50%	16,17%	45,83%	0,50%
4°: Complete the E1 form	0,20	37,50%	22,83%	39,67%	0,00%
5°: Form Submission	0,20	5,33%	0,00%	94,67%	0,00%
TOTAL (%)	100,00%	23,83%	14,03%	61,80%	0,33%

Exhibit 9: Overall evaluation for all 5 tasks regarding the service e – Income



Observing the results and focusing on the percentages of each answer of the above presented table we conclude the following:

- The users' evaluation in respect to the first task is positive (70,83% positively and rather positively) leading as to infer that the environment and the navigation regarding the service location is user friendly.
- The users' evaluation in respect to the second task was 55,66 positive and rather positive. This percentage reveals that during the log-in procedure the users faced a couple of problems.
- The users' evaluation in respect to the third task was 45,83% positive and rather positive which in combination with the respective percentage of negative answers (37,5%) means that the location of the form can be improved.
- The users' evaluation of the fourth task is 37,5% positive and rather positive which means in combination to the negative answers percentage (42,33%) that the task of filling - in the form troubled the users. The reasons will be analyzed tin chapter 5.2.
- The users' evaluation of the fifth task is positive (94,67% positive and rather positive) leading as to the submission part is absolutely efficient.

Regarding the general questionnaire, the users had to fill in and therefore evaluate the E1 service as a whole; the positive percentage reached 60% which directs to the safe conclusion that the specific electronic service is well structured and highly functional. Moreover, the consultants' evaluation based on the respective general questionnaire was 80% positive. However, it has to be noted that the consultants' evaluation focused mainly on technical

aspects of functionality and architecture which does not necessarily reflect the users' level of acceptance.

The formulation of suggestions for improvement related to the e-Income service includes suggestions concerning some specific points and general characteristics. These suggestions are developed into three stages; two of these stages are related to the opinion of the users and the third stage to the opinion of the consultant.

As far as the users is concerned the outcome of the relative results derives not only from the comments stated during the use of the service (simultaneous completion of the questionnaire), but also from the general "image" that was given from each step and for the general characteristics, via the application of the "Mystery User" methodology.

In more details for the 1st and 5th step, the view of the users was in general positive. The choice of the service is realized in an environment rather friendly towards the user, while the provided informative material is characterized as sufficient, up to date and reliable.

Concerning the 2nd step some difficulties were noted during the typing of the user name and password, mostly in relation to the use of characters in capitals. Moreover, some negative judgments were noted in matters that concerned help during entrance and the non existence of standardized relative guidelines. Consequently a suggestion of improvement could be the supply of informative material related to access matters (typing of user name and password) which will include, besides the rest, a table of recipient and non recipient characters which can be contained in the password. Also, include the adjustment of characters with capital and "small" letters during the typing of the user name and password in correspondence with the "search engines". In total though, the majority of users positively evaluated the above mentioned step.

On the 3rd step a significant percentage of negative judgment was noted, mostly in matters of the supply of informative material but also in what it concerns the possibility of recovering an older form and its maintenance on the interface simultaneous with the completion of the form. The fact that an older form can work as a guideline for the completion of the form that needs to be submitted, it renders imperative, not only the possibility of its recovery, which in any case is provided, but also its maintenance on the interface for the support of its user for the fields he/she is required to fill in. Respectively the same as above applies to all forms that are submitted with the "E1" form (E2, E3 and E9). However at this point it has to be added to the positive points of this service the fact that at the abovementioned step the users have the possibility to mention judgments and observations related to the improvement of the function of the system.

During the evaluation of the 4th step, the largest percentage of the negative judgments was noted, mostly on matters that were related to the difficulty of understanding the fields that have to be completed, except the ones mentioning the personal details. In consequence, as a

suggestion of improvement that would balance this difficulty, could be either the supply of pre-completed amounts in accordance to the older declarations of the user, the systematic and graduated supply of supportive information during the completion, or the marking of the fields that need to be filled in and concern financial amounts, so much for the current, but also for every "new" user. Moreover, in order to avoid the confusion as for the fields needed to be completed by different types of tax payers, the supply of the "E1" form in publications (with the relevant fields marked), as many as the type of tax payers are (individuals with income gained from owning real estates, employees, self employed, pensioners, farmers / cattle breeders / fishermen and craftsmen / industrialists) is desired.

Relatively to the general characteristics of the e-Income service, despite the fact that the judgments were in majority positive, some facts that relate to general characteristics and need improvement were pointed out. Consequently, the existence of the possibility to cancel an action as a user at any stage of using this service is desired. Moreover, it would be an improvement, on one side the existence of the field "search" at any subpage of this service, and on the other, as possible it is the grouping of information, based on the subject of the contents.

As for the evaluation of the service on behalf of the consultant, that was focused on the technical dimension and it was extremely positive. The e-Income service constitutes an electronic service with a high level of sophisticated level (level 4 according 'Cap Gemini') that could be a prototype for the development of new digital services or the upgrading of the already existing ones at the same level.

Concluding, relatively to the general "image" of the service, as for its use and its simultaneous evaluation from a random sample size of users, the e-Income service was characterized in general positive on a percentage 60.88% (42.83% positive judgment and 18.07% probably positive). On a national level, the pioneering application of the "Mystery User" methodology proved that, the citizens in majority are positive as for the electronic transaction of their most important tax obligation (declaration of yearly income) since a high level service is supplied and at the same time it is friendly to a wide range of citizens. However the national percentage of digital service usage is not rather high. Which means that the reasons of this discovery must be obtained, but not for matters that relate to the sophisticated level, the functionalism and the ergonomic design of the electronic service but , the informative actions that relate to the diffusion of the meaning "Electronic Government" opposite of the current relevant biases on behalf of the majority of the citizens.

