User Role Analysis of the travel expense report

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TABLE OF CONTENTS

Introduction

For the project of the travel expense report, a user role analysis is required as the first step to create a new travel expense system. The analysis will describe the key users, who they are, what they expect the product to do, and what they will do with the system.

This analysis produced by the User Interface team is intended to be a high level document made to help all people involved in the process of creating the new system. The UI team will be involved from the beginning until the delivery of the web based application.

Product background

The new product for the travel expense report is supposed to replace the existing mainframe system. The new system will be completely web based and will be used 24 hours a day and accessible with a regular internet access from anywhere in the world.

The actual system used by accounting manager, sales managers and sales representative, brings different problems that the new system should address. Sales people need an accurate data entry system, sales managers need better reporting tools and accounting manager want an accurate system.

Objectives

The objectives of this analysis is to get a good understanding of what the users need and how a new web based system will help them to accomplish their tasks. The system should improve the usability and also help different type of user accomplish their specific tasks.

Basically, the system will be used to enter expense data by the sales representatives, expenses that will be monitered by sales managers and approved by the accounting department.

ANALYSIS

The informations for this analysis were collected with the help of three differents persons.

Thes e people have given the followings statements :

- what they do with the actual system
- what they don't like with this system
- what they expect to do with the new system

Broad User Segments

Broad user segments have been defined during the interviews and here is the users's list ranked from the most important :

1. Submitters
2. Approvers
3. Administrators

There is four different informations for each user, Background (education), experience, Motivation (toward the new product) and goals (task expected).

Submitters

In this list, Submitters are the very first user group. Thay have this rank for the following reasons:

- They have personal financial interest.
- They have a very high frequency of use.
- They are required to use it.

Table 1: Broad User Segment: ***Submitters***

Background	Experience –Other Products / Tech	Motivation	Goals
The educational background is mixed It's composed of university and/or collegial degrees in finance.	They have experience with the Internet and Microsoft applications.	They want an easy way to be able to submit their travel expenses. They want a system that gives them calculations and a simple tracking system.	Create, edit and submit travel expense. Follow approval from managers. Follow payments notification.

Approvers

The approvers is the second group of users. The reasons for this are as follows:

- They have business interest.
- They need to control their budgets.
- They are in-between submitters and accountants

Table 2: Broad User Segment: *Approvers*			
Background	**Experience –Other Products / Tech**	**Motivation**	**Goals**
The educational background is mixed. It's composed of university and/or collegial degrees in finance.	They have experience with the Internet and Microsoft applications.	Approvers want to have a reporting system and run it whenever they need it. Approvers want a validation system that can accept exceptions. They want to make sure that corporate policies are respected. They want to be able to contact Submitters by email.	Review travel expenses. Approve travel expenses. Control travel expenses. Send questions to Submitters with email.

Administrators

The Administrators are the last link in the chain of events for the following reasons:

- They have to follow accounting policies.
- They are required in order to match the receipts and the informations on the forms.
- They have to process payments to the employees.

Table 3: Broad User Profile: *Administrators*			
Background	**Experience –Other Products / Tech**	**Motivation**	**Goals**
The educational background is mixed. Some users have a high school diploma or university degree.	Some users need a training for using a computer.	They want to make sure that employees get their expenses paid.	Match the receipts with the online forms. Send the proper amount of money to employees. Make random audits.

Specific User Segments

User segments have been defined to help the understanding of all the aspects of their tasks.

Submitters

Table 4: Specific User Segments - Submitters	
Submitters	**Description**
Sales representative	Sales representative have financial background. Sales people travel several times on a monthly period. They have to submit their travel expenses all the time. So they create/edit their expenses. They have to send their receipts to the administration department. They are basically experienced users because they do their task after each travel.

Approvers

Table 5: Specific User Segments - Approvers	
Approvers	**Description**
Approvers	Approvers have financial background as well as management. The approver have to manage his travel expense budget. They would like to have the possibility to create their own reports at any given date. They need to contact sales representative by email just to ask questions regarding travel expenses.

Administrators

Table 6: Specific User Segments - Administrators	
Administrators	**Description**
Accounting Manager	Accounting Manager has a degree in business administration and is an experience computer user. Accounting Manager has a team of at least 10 clerks on a full time basis and sometimes temporary people.The responsibility of the accounting manager is to make sure that all the policies are correctly applied in all the process.
Clerks	Clerks can have a high school diploma or university background. They are average users with computers. They have the responsibility to match the paper receipts with the online form. They have to audit from times to times the travel expense reports.
Temporary	Temporary have the same description as the Clerks. They need a training for using computers.

SPECIFIC USER ROLE DESCRIPTIONS

The specific user role description is done to give a better understanding of users and their tasks. These are two of the user roles that we want to describe.

Table 7: User role description for Submitters	
Role Id Number	1
Name	Sales representative
Description	The sales representative travels to meet clients.
Experience level Computer Literacy Job Literacy Educational Background	 Experienced computer user 15 years of job experience University degree in finance
Physical Characteristics Demographics Sensory Limitations	 Average age: 45. Needs glasses to read.
Environment Space Light Noise	 Works at the client's office and business office and use Internet. Have access to regular cubicles when in the office and regular rooms in hotels.
Environment technical Hardware Software Documentation	 Hardware and software can be different.
Tasks Collaborative/individual Batch/Interactive Frequency of use	 Tasks are: create, edit, delete and submit travel expense. Has to track their travel expense request. Frequency of use is high – possibly every day.
Notes	The sales representative wants to follow his expenses request and have the possibility to increase font size in the web application.

Table 8: User role description for Online Subscriber	
Role Id Number	4
Name	Clerk
Description	Clerk receives the paper receipts and match them with the online forms.
Experience level Computer Literacy Job Literacy Educational Background	 Average computer user High school diploma

Physical Characteristics Demographics Sensory Limitations	 Age between 18 – 40 None
Environment Space Light Noise	 Computer is in a regular 8*8 cubicle. Lights are harsh. Telephones can create a noisy environnement.
Environment Hardware Software Documentation	 Regular PC We assume this is an Windows XP operating system.
Tasks Collaborative/individual Batch/Interactive Frequency of use	 Task are : receive paper receipts, corrects data entry Every day
Notes	This user can also performs other clerical duties. He needs to inscrease the font size at will and the interface should integrate an online help.

ANALYSIS VALIDATION

For the completion of this analysis, meetings with key people were made to ensure the validity of our informations. Each person explained their work related with the actual system and expressed their needs for the next system. They also gave us other people as reference for further explanations. The average meeting session was about 15 minutes for each person.

After the completion of the meetings with three users, a very first draft of the analysis was sent to these persons. They gave use their comments and the analysis document has been corrected. During this process, each person was asked to comment not only on their role but also on their understanding about the whole project. After that, the Specific user segments and specific user role descriptions were made and once again revised by our key people.

Finally, after a few rounds of revisions, the User Interface team came up with this document, version 1.0. This document should give a clear view of what the new system is supposed to do for each specific user.

While all charter members of the User Analysts Guild are certified to provide quality, thorough, and comprehensive analysis, an analysis validation is always undertaken to ensure the highest quality of the results. In this case, a user survey was sent with each newspaper that allowed the readers to provide us with valuable insight into the user roles they would fill. The users were also given the option of completing the same evaluation on the Internet at a web page built for this purpose. This proved to be very useful in providing the initial set of data used in the analysis.

Once the preliminary broad and specific user segments were determined, representatives from both the originators of the system and the intended user segments were solicited to validate the plan. Representatives were chosen from multiple locations to include a more diverse sample. Field studies were also conducted with a user from each Specific User Segment, allowing the analysts to observe the daily tasks of these users. Each representative was first asked to confirm the broad and specific user segments that apply to him or her. Then they were encouraged to briefly review the other user segments and to suggest any possible additions that could be made to make the analysis more complete.

The chief analyst then reviewed all the additions and changes made by the representatives. If necessary, the user segments were expanded or modified. Once the new version was available, it was again submitted to the representatives for review. This process continued in an iterative fashion until both the client representatives and the chief analyst were satisfied that the analysis was complete.