

**RESEARCH CONCERNING THE ACHIEVEMENT
OF AN INTEGRATED PLATFORM TO SUPPORT SMEs**
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Keywords: Integrated Platform, Collaborative Working Environments (CWE), SMEs.

Abstract: The paper presents an Integrated Platform based on a set of syntactic-semantic technologies, which are used to understand and create software solutions. These ones allow users to have a friendly connection to IT systems, for getting information and answers to the requests that they have expressed in interrogative phrases, not by keywords. Integrated Platform to support SMEs will have, as primary function, the SMEs small traders interest vectors coupling, on various information categories, with the Web information. The Integrated Platform represents the SMEs Collaborative Work Environment (CWE), itself.

1. USING COLLABORATIVE WORKING ENVIRONMENT FOR THE SMEs PLATFORM DEFINING

Collaborative Working Environment concept is a working methodology that creates an environment for collaborative component teams in order to achieve a goal.

The collaborative environment involves the achievement of a communication system that allows teams to identify information system components, to simplify them, to link them, to automate their processing and to control information access to reach the goal.

The Collaborative Working Environment (CWE) is the base for the participatory management, in which each participant user can access the system, in a parallel way and in real time, [1], [3].

The system should be operational at entire organization (macroeconomic entities) and for each decision level (single manager). The system is opponent to the classical techniques and traditional methods for an economic entity management. Both systems recognize that human resource is the one that has unlimited potential to solve problems and to make decisions, [2].

It is obvious that the CWE system makes the responsibility transfer from the individual level to the group level, without diminishing the responsibility of the manager's decision. That involves a series of changes of the management system and of the subsystems components; the decision maker can finally obtain enough information to adopt the optimal decision.

Today is the tendency to use at large-scale the economic entities in the collaborative process. Also, there are recent developments, at world level, which are characterized by the emergence of virtual organizations and networks. Their interconnection into the EDI networks (Electronic Data Interchange) has imposed the *virtual teams*, which can be used in CWE projects platform, [4].

The CWE communication framework organization can be achieved by:

- the institutionalization of information exchange mandatory procedures with key partners, the main partners being CNIPMM, MIMMCTPL, FNGCIMM, INIMM and SMEs as main users. Procedures must be developed together, [3].
- creating an information access system for all entities levels, that have access to the system. There is an achievable access by the IT facilities using of the designed platform,

- also with information protection measures and an appropriate public access level.
- the existence of a library (database) with all information and processing elements, a fundamental access system element – the Selected Referential Collections Library.
 - establishing links between information and users, within the system, in two directions: the first is from a user to the system and the second is from system to the user.
 - establishing a way to ensure a direct and punctual dialogue (forum, brainstorming, etc.).

The specific functions of SMEs Collaborative Working Environment platform are:

- horizontally carrying out collaborative activities (between base levels, respectively SMEs members), for the information processing use;
- two-way vertical carrying out collaborative activities (between the top and the base of the pyramid), for information use;
- context or client services providing;
- managerial support services providing (for background analysis and decisions);
- managerial guidance providing on management and marketing activities field;
- communication lines - punctual dialog development - on an individual or collective interest issue;
- providing assistance and information services in SMEs activity interest areas, [5].

There is a virtual team, in order to achieve these functions on the platform, which will review the information system and information characterizing of SMEs activity. It will select relevant information, it will establish information presentation and processing mode (for summary information) methodologies. It also will analyze and determine information needs of the managers that can substantiate their decisions.

2. SMEs INTEGRATED PLATFORM FUNCTIONS

Integrated Platform aims to realize functions as general and economic life specific interest vectors couplings, which are detected for tests at various aggregation levels, on their defining elements:

- Collaborative Working Environment function establishment for platform customers, which concerns:
 - consultancy, assistance, analysis and forecasts development, actions and events;
 - documentation, elements providing for decision fundamentation;
- Collaborative Working Environment function output for platform customers, which conducts forums focused on offering services, information, collaboration, opportunities, service requests, etc.

The functions will be performed in real time, [6], [7].

SMEs are characterized by a large field of activities domains, which may include general information and common to all activities of the same kind in the area, but also well-defined information, which are specific to a determinate domain (technical – scientific information).

The ontology in informatics domain formulates an exhaustive and rigorous conceptual schema within a given field, aiming to facilitate communication and sharing information between different systems. In presented situation, ontology should combine both areas of information.

Central level of SMEs economic entities, even the Internet users community - are virtual communities and they can be considered as organizations. Virtual communities work in collaboration and they represent a special type of virtual community, being focused on one knowledge field and having accumulated expertise in time, in that area. Members of these communities develop a common working practice, by interacting in solving problems, building a common basis of specific knowledge - the Selected Referential Collections Library, for the SMEs platform case.

Community interest groups are divided by interests in two categories: those that provide products and services and the data platform uses. The first category focuses on the form issue and technical content and the second is interested in usability issues, preferring social orientation. The two groups need a common vocabulary, the standardization problem, in this area, is open.

A working system is a system in which human participants and/or machines make a business process using information, technology and other resources to produce products/services to internal and external customers. Typically, organizations contain more working systems and they operate through them. Working System understanding involves at least six elements understanding: business process, participants, process manufacturing, technology, products and customers, [8].

3. ORIENTED PLATFORM ONTOLOGY FOR SMEs ECONOMIC PLATFORM

For obtaining the SMEs Integrated Platform it will start from a given linguistic material based on SMEs specific and general business environment, which will be explanatory dictionary of SMEs economic terms.

To achieve the information classification for the SMEs Platform, it will be considered that the ontology refers to a taxonomically structured objects collection, which is similar to a classification, each object being a fragment of a program that can be used to build other programs that have main economic issues specific referring to SMEs, [9].

Information will be grouped in two categories:

- general and SMEs specific requirements information;
- economic / technical character information concerning SMEs types activities domains that are available for the platform user, for analysis or for decision base, for coordination and control actions.

For a good analysis and evaluation is needed to be made the time information evolution. The primary Platform user is an active person from SMEs, or other person who wants SMEs information. By analyzing the SMEs general requirements there were defined the requests, within the following issue areas: market orientation, organization and enterprise management, product development and engineering, personnel, fiscal, public authority.

The platform requirements over the users' calls are creating computational linguistic resources, on which it can be developed the query assistance program, namely:

- the parallel corpus having economic and business language texts used by SMEs;
- a concise ontology of business concepts;
- a formalizing by syntactic transposition of Nominal groups containing the most used economic terms;
- an extraction from the terminology units' corpus, their validation and their organization into a dictionary of economic and business terms and abbreviations.

The users are required to draft interrogative information demand form, which imply a proper knowledge in science organization and management, dictionaries consulting, for economic and technical specialty terms explaining, in order to enrich the field of activity, [9].

The economic impact of SMEs specific environmental issues included general information vectors and punctiform vectors focused on a specific issue, from a narrow area.

The Platform aim to achieve vectors coupling for the users' general interest, especially for SMEs, is achieved through computer functions series, IT performed. Their purpose is to search user requested information, mainly using the web-site Internet and linked to a future Selected References Collections Library.

It involves the achievement of an approval and request interpretation system, which are based on user requirements analysis; the response form is concise, friendly and understandable.

4. CONCLUSIONS

- Managers and other SMEs staff did not have sufficient information to act and have decisions in various fields, especially they didn't know how to properly use the means at their disposal and the ICT facilities.
- There was no system / method to make communication easy and friendly to those interested in SMEs activities, to obtain information from their field. Communication and current operation is based on the search engines, by using keywords defined by the applicant.
- The SMEs Intelligent Platform aims to eliminate these shortcomings and become an easy and friendly tool, where the applicant will express the request, in a common language, which contains keywords for a search engine. The software developed will know how to extract and use properly keywords founded.
- Platform will use the Collaborative Working Environment methods facilities, as part of this method, making friendly and easy communication between the own application way and data and information existing in the Internet working environment.
- In order to achieve the Platform desideratum it is necessary to reach and to adopt a software especially to the required goal. The software appropriate to the platform requirements must achieve a cycle based on choosing of the appropriate searching methods and texts and key words interpretation, using dictionaries, thesauruses, libraries, etc. (Figure 1).

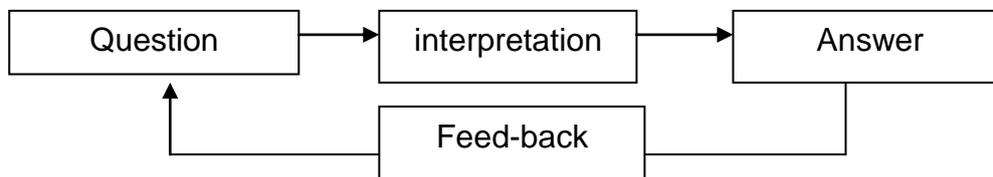


Figure 1. The characteristic cycle of the software proposed for the Platform

- Evaluation and selected specific computer informatics, exploring of Web page specific search engines - as response to the request and the publication of editing content – will be made in a friendly understandable form for the user, by the specific software platform.

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