

## University entrepreneurial virtual platform in the field of ecological material engineering for Balcanic area

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**Abstract.** The purpose of this paper is to highlight some general considerations on a virtual platform, as a means of aggregation of new environment-friendly markets, both classic and virtual, with application in the economics of services and products specific to circular economy, but also on their mode of operation as virtual economic products, having as major goals the commercial transactions, trading relations and communication within the virtual environment of companies and organisations whose economic scope of activity relates to the field of organic materials and products.

**Key Words:** virtual platform, e-business, virtual organic product, internal green market, circular economy.

**Introduction.** Within the new economic context which has become increasingly globalized, Romanian business environment as well as the Balkan one, has been challenged to synchronize efficiently the new products and the global services with improved supply and demand. This challenge involves interconnection and virtual management of demand and supply regarding products and services within a common platform for coordinating and consolidating inclusion markets.

Assuming that taking part in the global market for the Romanian and Balkan e-business environment depends on how it relates to foreign markets, the emergence of computerized tools for coordinating and intermediating businesses becomes an obvious necessity.

Online support and assistance platform (SA-P) represents a globalizing step of the Romanian and Balkan business environments in order to build a strong entrepreneurial community through a virtual portal platform as resourceful tool for entrepreneurs working in the ecological and environmental protection field.

In this respect, the platform is based on a computerized business-to-business model of relationship between economic agents from a certain market in order to meet the complementary economic and entrepreneurial supply and demand by using a multi-criteria search-result function in a BETA version of a specific application.

Thus SA-P can link distinct partners within a community as well as partners from outside who upload on the online platform their own supply and demand on information, consulting, design, production, processing, services, promotion, sales, etc. in a context specific to socioeconomic circular economy in order to complete certain transactions.

**The goals and objectives of the platform.** Setting as main objective trading and online communication in the virtual environment of companies and organizations in the field of materials and organic products, the SA-P was developed in order to aim the following aspects as main purposes:

- studying, documenting, selecting, centralizing and systemizing data as well as communicative and relational concepts that exist in different organizational environments in the field of environmental protection and which are visible online;

- defining an economic, technical and communicational developmental framework of a business-to-business relational system, available for existing business economy companies in order to facilitate online companies' management in trading, communication and public relations applicable in the field of environmental supplies, products and services.

**The roles and functions of the platform.** Starting from these assumptions, this tool which is intended to meet business requirements undertakes the following tasks:

- to provide business networking between members;
- to strengthen small business' presence on global market;

- to support a strategic concept such as developing a certain market or the economic development of a geographical area;
- to serve larger companies and associations of businesses organized in clusters, centers or development agencies;
- to analyze supply and demand provided by participants and economic agents;
- to ensure systematization on different criteria: formal qualification, competence, field of activity, medium-term development plan;
- to strengthen supply and demand includes: summing up data referring to supply and demand of companies' internal markets, assessing the critical level from which they are relevant, summing up relevant supply and demand by using material-symbolic relation between participants who have generated it;
- to take part in online economy, which means that after supply and demand has been strengthened it is available in online markets in order to link external online partners;
- to facilitate constructive business relationships for members and partners;
- to facilitate supply and offer by providing interconnection between partners within the online framework;
- business incubators for startup companies by providing support, consulting and training services;
- to support new initiatives and their development in online environment;
- to manage the creative resources and to make them visible in online for mentors, trainers and trainees;
- to develop upgraded supply and demand for an improved globalized market;
- to set a platform to support inclusion market and to strengthen global market demands;

Performing the tasks mentioned before, this online platform represents a powerful tool to improve the presence of small businesses on global market. Otherwise, in the absence of such an aggregation tool, these companies and communities might not be so visible (Soporan & Tiuc 2013).

**Operation of the platform.** The online link, within this project, between two fields of activity: Materials Ecology and Organizational Communication, although unusual, it proves logic and finds a natural justification in specific economic activities of organizations in the management and operation of environmental materials and products, operations which, along with the development of new information and communication technologies, can be quickly transferred in the online environment with increasing communicative possibilities.

This way of communication differs considerably from the classic one by a multitude of aspects which define the new rules of communication targeting easy access to information, interconnectivity with other agents of the economic environment and which influence the behavior of organizations and companies in all economic fields.

From the functional perspective the SA-P is divided into two parts:

- application part located in the top horizontal navigation bar;
- domain part located in the right vertical bar.

Application represents, within the functional purpose of the platform, various software developments, which have some functionality to any user perceived as final customer/user. It can configure and enter data and get response depending on the application that is running. Different applications will correspond and interact with their application domains.

In the described version, the application that can be accessed and rolled is RCO module regarding the supply-demand relationship. The relation supply-demand is achieved by responding to the indexing of certain parameters in the search. Thus, a product or a service, an economic activity that can be described by a variety of parameters can be identified by parameterization of its characteristic properties which

are simultaneous or consecutive search criteria in the searching process. There are two types of searches:

- by words, titles, contents;
- multi-criterial search by one or more predefined criteria in which response values are reduced as the number of criteria indexed simultaneously increases.

This way, after defining criteria, following the posting of supplies and demands in this established context, and following the search-response actions, some demands of companies may quickly find and develop complementary offer (commercial operation), or, on the contrary, for some pending offers may occur related applications (promotion function), all of these resulting in numerous positive economic transactions in a given market.

Domain means an object market or an area of interest (geographic, economic, related to the field of activity, expertise, etc.) that defines a virtual space on the platform (e.g. Environment = domain).

*Category* represents incorporating an area of activity into a Domain, depending on a number of specific elements with a high degree of similarity (e.g. Environment = domain, Green Energy = category).

*Article* means a tradable economic unit (service, product, etc.) that is described by a number of specific elements, items to be indexed as search parameters in the RCO module (e.g. Environment = domain, Green Energy = category, Wind energy = article). The article is, at the same time, the item being traded by linking the demand-supply (RCO) in the real market (Object).

*Criterion* is a defining attribute as text numeric value, logical values (yes, no), dates of an article (e.g. Environment = domain, Green energy = category, Wind energy = article, 1 megawatt power = criterion).

From the perspective of managing and using SA-P Platform operating roles set the following distribution:

*Public User* (PU) can be any person accessing the portal SA-P who views or reads published articles in various fields. In order to access the application RCO, an account must be created which will lead to becoming Member User.

*Member User* (MU) can be any person who, after creating an Account, defines his profile. Thus he can view, search and post a request and/or an offer on a certain Domain, Category or Article.

*Domain Administrators* (DA) are people appointed to configure and manage Domains. They configure and manage Domain depending on the specific market in different windows incorporating multimedia articles and content; configure and manage RCO application with various offers and requests till the Criterion level; oversee and are in charge with Domain and RCO Module in terms of relevance, accuracy and ethics of the posted materials.

*Technical Administrator* (TA) represents the technical team with duties in creation, maintenance, troubleshooting, intervention and technical support needed for proper functioning of the platform. The team creates Domains, accounts for DA, and has unrestricted access to all the levels of the Platform.

**The potential and the opportunities of the platform.** The purpose of this topic is to meet the needs of the increasingly globalized economic context within which the Romanian business environment is subjected to the challenge of efficiently synchronizing the potential of the new global products and services with the improved supply and demand in the Balkan market.

This challenge implies interconnection and online management of these, offering economic and social agents working in the fields of ecology and environmental protection the following opportunities:

- promoting the concept of sustainable development as a tool for resource management while respecting human needs in order to ensure access to this for the future generations;

- supporting innovation endeavor and absorption innovation in economy and society;
- contribution of innovative activities to improve the quality and competitiveness of products, processes and services, to create new jobs and sustainable economic development in a competitive environment;
- increasing reliability, flexibility, quality and quantity of production;
- finding new markets;
- creating a favourable business environment for the development and growth of SMEs;
- promoting entrepreneurship education and improvement of management abilities;
- consolidating a dynamic private sector able to cope with competitive forces and international competition;
- providing necessary consultancy services to help starting viable businesses (Soporan 2011).

From this perspective the motivation of a real interest and of a strategic goal among the economies in Eastern Europe and in the Balkan areas to grow as rapidly as possible in order to become more competitive in a post-crisis reconstruction, so as to reduce the differences between them and the highly developed economic areas is being analyzed.

The emergence of mechanisms and tools which can help local markets develop and which can generate trading, networking and especially strategic collaborations, is a common goal, in which the growth of entrepreneurship plays a major role in the sustainable development of circular economy model that is being anticipated throughout Europe.

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