

BUSINESS PARTNERS EVALUATION & SELECTION AT THE SMES – A ROMANIAN CASE STUDY

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Abstract: *At the SMEs level, the partner evaluation and selection is an activity aimed to build a business partnership that will lead both to increased competitiveness and adaptability to market demands. In recent years, the Romanian SME investments needed to implement a knowledge management system closely related in terms of ICT facilities and existing software, personnel qualification, objectives and the chosen technology solution implementation. The knowledge-based system for the partner evaluation and selection presented in this paper was implemented at the Department of Engineering and Foreign Languages and the UPB-PREMINV&CTTM research centers from University "Politehnica" of Bucharest, in an university – SMEs partnership.*

Key words: *business partnership, knowledge-based system, partner evaluation, partner selection, SME.*

1. INTRODUCTION

The Small and Medium-sized Enterprises (SMEs) proponents frequently claim that SMEs are more productive than large firms but the financial market and other institutional failures impede the SME development [1]. The SMEs play an essential role in the European economy as a source of entrepreneurial skills, innovation and job creation. The market analysis for the European countries states that 99% of companies in the EU are SMEs – companies with a maximum of 250 employees and a maximal turnover of € 50 million (see Fig. 1). In the European Union market, with 23 million SMEs and 41 000 large companies, the SMEs employ more than 65% of all employees. In the last decade, SMEs have created 80% of the new jobs in the EU (Ecorys Annual report on SMEs in the EU, 2011/12). Therefore, support for the SMEs is a priority of the European Commission for economic growth, job creation and economic and social cohesion [2, 3]. At EU policy level, the European Commission launched on 31 January 2008 a public consultation on the content of a European 'Small Business Act' aiming to put SMEs at the forefront of decision-making in the EU, with the aim of introducing measures that will unlock the growth potential of SMEs, in particular through highlighting potential areas for cutting red-tape, administration and bureaucracy [4].

Although it is widely recognized that SMEs are currently the most generous source of jobs, both in Romania and in the western countries, to direct attention to SMEs

only as an instrument of absorbing labor means to bring down their role in the economy and society because SMEs foster the creation and development of a culture of competition based on high flexibility and productivity. SMEs meet the multiple economic, technical and social functions [2, 5]:

- Generate the greater part of GDP in each country, usually between 55% – 95%;
- Provide jobs for the greater part of the workforce;
- Produce a large percentage of the relevant technical innovations in the economy;
- Give the highest market dynamism in the economy, a situation emphasized by the evolution of their number, the volume of turnover and size of employment – higher than the figures corresponding to the large companies;
- Produce frequently goods and services at lower costs than large companies, the mainly because of the lower costs;
- Show higher flexibility and adaptability to market requirements and changes favored by smaller size, faster decision-making process, specifically due to the entrepreneur and to his direct involvement in on-going activities;
- Are the seeds for future large firms, particularly in new areas of the technology;

SMEs do make substantial use of projects in their businesses in order to manage both the internal innovation/ development projects and the external assignments for clients [6]. The ability to implement a business intelligence project and to support it depends on readiness of companies [7], with the profit improvement depending largely on vision and cultural change, whether at the enterprise level, the business unit level or the functional level [8].

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Enterprise	Average number of employees	Turnover
Medium	< 250	≤ 50 million €
Small	< 50	≤ 10 million €
Micro	< 10	≤ 2 million €

Fig. 1. The SMEs definition according to the European Commission [9–10].

Since the end of the last century, the European Commission has promoted studies on the situation of SMEs with the goal of investigating how small industrial bodies, which are widely distributed in Europe, could reinforce their standing through aggregations, consortia agreements, collaborative networking and so on [11]. Many times, the business partners work closely with senior executives in order to achieve the common goals of the alliance [12]. At the SMEs level, the efficiency in the development of the operation and activities in which the partners take part induces satisfaction and increases the confidence in the alliance and its likelihood of success [13–14]. Other critical elements for accomplishment are communication, honesty and transparency between the parties [14]. An important issue is the inclusion of research institutions as well as policy makers and resource-constrained SMEs as such partners [15].

At the SMEs level, effective partnership involves joint decision making but also functional interaction centered development processes. Some of the elements necessary to take into account when setting up a partnership are:

- Felt the need for a partnership (by all future partners);
- Choose the most effective methods for assessments the partners;
- Selection of the most suitable partners after evaluation;
- Remove obstacles to partnership development;
- Approval by all members of the partnership objectives and group activities;
- Simple coordination and management.
- Collaborative planning activities done together and working procedures easy to use;
- Allocation of resources necessary for the implementation of joint activities (e.g. time, personal, materials, various facilities, etc.).

Each transition is characterized by different kinds of networks and partnerships, but this does not mean that the partners necessarily change – merely that their roles and functions in terms of accessing resources and capabilities are assumed to change [16]. Conclusions regarding competency that increases the alliance success should therefore be based on analysis of more than one business partner [17]. Based on these assumptions, we will show how can be developed a knowledge-based system for the business partner's evaluation to create a business partnership between SMEs.

2. THE SMEs BUSINESS PARTNERSHIP

SMEs tend to employ more labor-intensive production processes than large enterprises and, accordingly, they contribute significantly to the provision of productive employment opportunities, the generation of income and ultimately, the reduction of poverty [18].

As with all businesses, SMEs require resources, knowledge, and skills to grow and to increase efficiency and operational effectiveness [19]. The establishment of a partnership may be a way by which the partners are focusing their skills and best resources available to them in order to form a business. A partnership can be defined as a temporary alliance formed in order to achieve some common goals, created between the various organizations concerned, which may be state organizations, private organizations, NGOs and social partners [20]. Partnerships encourage the development of newer and effective ways of achieving goals – in this way partners plans evolve as a result of the partnership, becoming more intelligible, and their programs are integrated into larger entities [2]. Partnership can develop on several levels (in terms of complexity), and may consist of simple coordination of partners (for a specific action) or may be in the form of cooperation and/or collaboration [20].

Always the best partner is one whose strengths are complementary with the other partner's limits and vice versa. The SMEs partners (see Fig. 2) can be considered as following [2]:

- *Possible Partners* – partners can be considered for collaboration;
- *Tracking Partners* – partners cannot be taken into account at the moment, but can be monitored to track progress and eventually re-evaluated in the future;
- *No Partners* – partners do not correspond in any view and do not satisfy any requirement.

Partnerships are beneficial for entrepreneurs. There are numerous examples of entrepreneurship and successful businesses based on partnership. The best partnerships are achieved when the vision and values are common, as well as the passion and enthusiasm.

Partner enterprises combine resources and activities in order to have new or improved services that can better solve the complex problems of the beneficiaries. Partnership factors like collaboration, cooperation and teamwork are underlying the important topics studied intensively by



Fig. 2. The SMEs business partnership levels [2].

those in charge of organizations management and are considered successful strategies both for NGOs and for the public or private organizations. Even founders are aware of this and put forming partnerships between SMEs as a precondition for accessing funds. The opportunities for mutually beneficial private sector partnerships range from production agreements to joint research projects in the country or abroad. Most of the SMEs witnesses growing opportunities abroad, even if unfortunately there are obstacles for SMEs that want to grow internationally. Some of these obstacles include political instability, cultural factors and inadequate infrastructure, excessive bureaucracy, administrative costs and lack of the system transparency.

Various partnerships between NGOs and private companies have emerged in Romania after joining the EU structures. A solution for Romania is to develop a support system for innovation at national level in order to stimulate the creation and development of business incubators, as well as industrial and technological parks. A first step could be the development of an e-services portal for SMEs followed by a campaign to promote the services portal to disseminate as widely as possible. Another step could be the developing partnerships between education and professional training component and the real economy by involving social partners in the planning of education and training [21]. Technology manufacturers and service providers looking to disseminate their products in rural areas could benefit from a cooperation with local communities (local authorities) to identify entrepreneurs in these areas, in order to conclude a business partnership. It is important to know that each partner can bring to the partnership various specific assets and often complementary human and financial resources, technical resources or meaningful knowledge.

Building effective working relationships takes time and effort – sometimes there is even a risk that partners focus more on relationships than on the conduct of activities and delivery of services. The most risky are the partnerships created between enterprises of different sizes, where there is an imbalance of power and human and financial resources.

The existence of trust is the main condition for success in a partnership. Through a high level of trust there are removed the problems related to monitoring and controlling the activity of the partnership. One must not forget that the ability to trust a trading partner is fundamental to the development of complex economic relationships and the confidence in trading partners may be based on knowledge gained through past interactions with the trading partner [22]. Social business networking involves forming and maintaining the relationships with other businesses [23] – the ability to participate and benefit from network relationships can be regarded as a prerequisite for innovation [24].

3. THE SMEs PARTNERS EVALUATION

In practice there are various assessment methods based on more criterions such as: notes system, the weighted point evaluation method, process with rates, process with indices, determining a profile, etc [20].

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CLS
DISPLAY"
In the enterprise, defining stage for further development of the project is the training phase of
an alliance between two or more partners. Partner evaluation process leading to their profile
reveals strengths and weaknesses. The method uses both qualitative decision criteria, as well as
quantitative.
~"
CLS
FIND name
FIND score
FIND ps1 FIND ps2 FIND ps3 FIND ps4 FIND ps5 FIND ps6 FIND ps7
FIND ps8 FIND ps9
-----
FIND appreciation
-----
DISPLAY
"PARTNER has the following STRENGTHS =
{pt1} {pt2} {pt3} {pt4} {pt5} {pt6} {pt7} {pt8} {pt9} {pt10} {pt11} {pt12} {pt13}
{pt14} {pt15} {pt16} {pt17} {pt18} {pt19}"
DISPLAY
"Partner obtained the QUALIFYING = {appreciation}";
-----
RULE 0-4
IF cal1<>? AND cal2<>? AND cal3<>? AND cal4<>?
THEN FIND p16 FIND p17 FIND p18 FIND p19
pct5=(p16+p17+p18+p19);

RULE 0-5
IF pct1<>? AND pct2<>? AND pct3<>? AND pct4<>? AND pct5<>?
THEN score=(pct1+pct2+pct3+pct4+pct5);
-----
ASK com2 : "2. How good is collaboration?
B. Behavior in discussions, negotiations is:
- Very good [I]
- Good [II]
- Normally [III]
- Acceptable [IV]
- Bad [V]:";
CHOICES com2 : I, II, III, IV, V;

RULE 8-0
IF com2=I
THEN p7=2
p7=Behavior;

RULE 8-1
IF com2=II
THEN p7=1;

RULE 8-2
IF com2=III
THEN p7=0;

RULE 8-3
IF com2=IV
THEN p7=-1;

RULE 8-4
IF com2=V
THEN p7=-2
ps7=Behavior;
-----
ASK flex4 : "4. How flexible is the partner?
D. Technological changes according to orders take place:
- Immediately [I]
- In short time [II]
- Within reasonable limits [III]
- With delay [IV]
- It takes a lot [V]:";
CHOICES flex4 : I, II, III, IV, V;

RULE 15-0
IF flex4=I
THEN p14=2
pt14=Technological_changes;

RULE 15-1
IF flex4=II
THEN p14=1;

RULE 15-2
IF flex4=III
THEN p14=0;

RULE 15-3
IF flex4=IV
THEN p14=-1;

RULE 15-4
IF flex4=V
THEN p14=-2
ps14=Technological_changes;
-----

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Fig. 3. The SMEs business partnership levels [2].

A knowledge-based system for assessing partners using this method was developed and implemented in VP-Expert and Prolog (we used the expert system generator VP-Expert version 2.1, by Brian Sawyer, Educational Version distributed by Paperback Software International). The knowledge base (EVPART5.KBS) contains rules on partner evaluation criteria (in terms of timeliness, communication, price level, quality, and so on). In the EVPART5.KBS knowledge base there are *if-then* structure rules (see Fig. 3) – excluding the rules for inference engine operations. An example of partner evaluation is shown in Table 1.

The partner evaluation method by making their profile (graphical method) is based on the following steps [2]:

1. For relevant assessment criteria there are created different classes for objectives achievement.

For each objectives achievement class there are set the same evaluation stages for all the factors.

Table 1

The partner evaluation method by determining their profile

Key variable	Associated factor	Evaluation steps				
		2	1	0	-1	-2
1. Ensuring product quality?	Product quality is:	Exceeds quality requirements	Very good	Good	Fair	Under the standard
	Product warranty is:	Very high	High	Normal	Small	Very small
	It works according to the standards:	Yes		Generally yes		No
	Quality audits take place:	Regular		Rare		Not happen

Score 1					
2. How flexible is the partner?	Partner's reaction to beneficiary requests is:	Very fast	Fast	Normally	With delay	It takes a lot
	Adapting to beneficiary requirements:	No problems		With minor problems		With problems
	Changing the delivery volume based on beneficiary requests takes place:	No problems		With minor problems		With problems
	Technological changes according to orders take place:	Immediately	In short time	Within reasonable limits	With delay	It takes a lot
	Cooperation with various partners and beneficiaries are:	No problems		With minor problems		Are difficult

Score 2					
3. How are respected the deadlines by the partner?	Contractual terms are respected:	Strictly		Small delays sometimes occur		Delays frequently occur
	Technical modifications are realized:	Very short	Short	Normally	With delay	It takes a lot

Score 3					
...
...
...
Total Score		Strengths: ...		Weaknesses: ...	
PARTNER A		Qualifying: GOOD / AVERAGE / UNSATISFACTORY				
Total Score		Strengths: ...		Weaknesses: ...	
PARTNER B		Qualifying: GOOD / AVERAGE / UNSATISFACTORY				

Next steps are distinct:

Version A

- The partners whose decision parameters correspond to degree of objectives achievement are analyzed together. The main indicator is the actual profile of the possible partner.
- By comparing the profiles it is chosen the best partner. The method has limits where intersections occur between partners profiles.

Version B

- It is created a target profile that reflects the partner's claims.
- It is represented the created profile.
- It is selected the partner whos profile corresponds the best to the target profile.

Partners will be assessed and will receive a qualification, depending on their score. In addition to this qualification, there will be highlighted the partner strengths and weaknesses (the result of a partner evaluation is shown in

Fig. 4). The method will take out in detail the strengths and weaknesses of partners, giving great importance to the selection of partners if there are two or more partners with similar scores [2]. The method uses qualitative decision criteria, as well as quantitative. Disadvantages that arise due to the different weights can be obtained only very hard, and graphics overall assessment is not possible. The business partner skills can become strengths in a project or another, incorporating elements such as professional and efficient use of resources, access to new partners, reorganization activities, etc. Partnerships encourage the development of new and effective ways to achieve goals – so the partners plans evolve as a result of the partnership, becoming more understandable, and their programs are integrated into larger entities [25]. The main partners (initiators) can organize various activities, presentations and discussions on the scope of the project. After this involvement, it may be organized a meeting of the partnership.

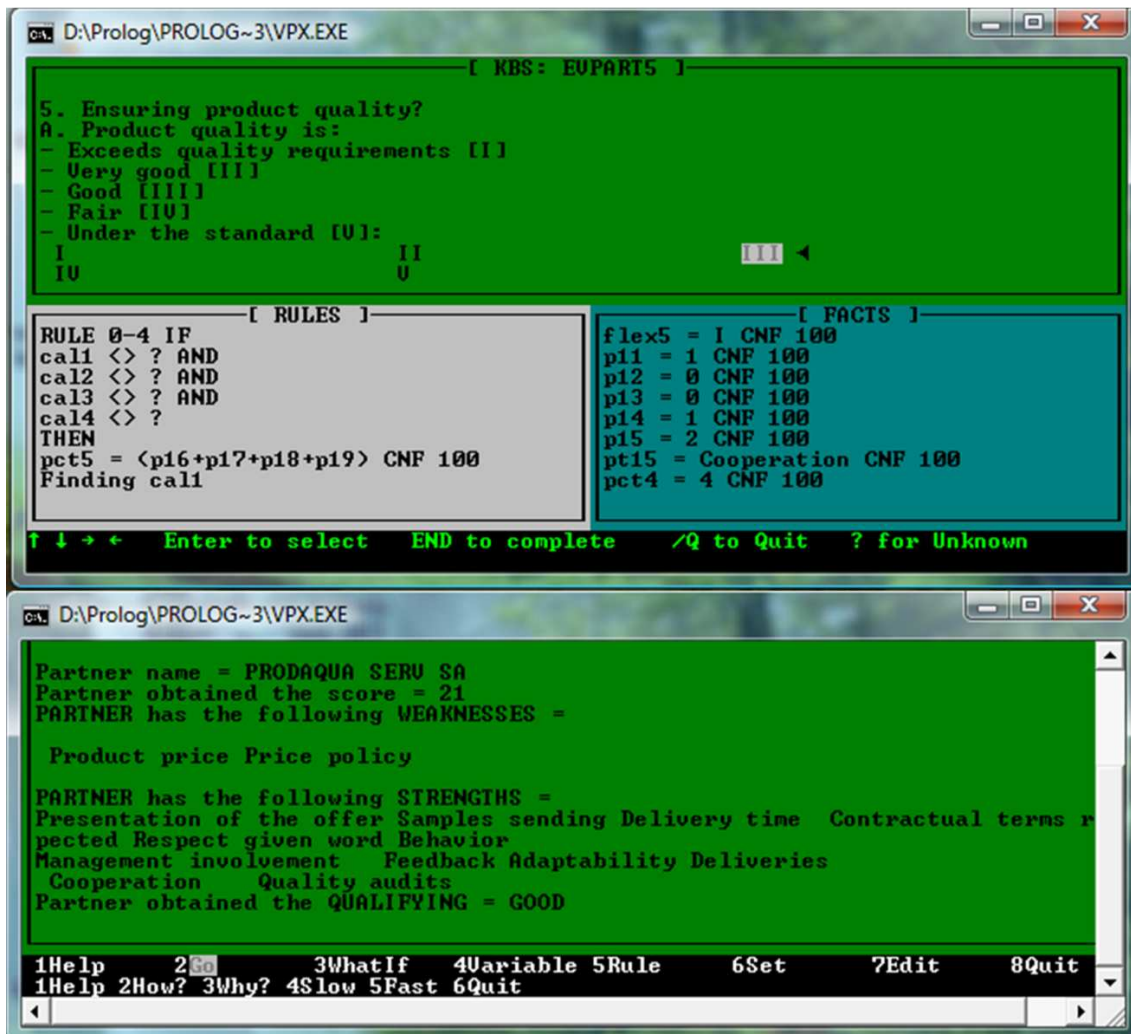


Fig. 4. The SMEs business partnership levels [2].

The partnership can be established for a fixed period which may be shorter or longer. Often, the parties may sign a partnership agreement on the agreed activities.

7. CONCLUSIONS

SMEs represent 99.7% of total number of enterprises in Romania and generate two-thirds of jobs in the business and half of gross value added. However, the number of SMEs per 1,000 inhabitants is only 24, and is considerably lower than the EU average of 42 SMEs. Unfortunately, in Romania it was found that 90% of SMEs have fewer than 5 employees and 90% have monthly income around the minimum wage (750 lei \approx 168 euro) [2]. The importance of this sector for the Romanian economy has led to setting up at the end of the year 2000 of the Ministry for SMEs, subsequently transformed into the National Agency for SMEs and Co-operation (ANIMMC) in June 2003. Euro Info Centers, as well as national and regional SME Development Centers are very important to counsel the managers who are interested to invest in technology and who wish to have a successful start-off in the European e-business sector [26]. The main advantages of a business partnership are low costs and the easy formation. From the financial perspective, the advantage of a partnership stays with funds pooling. Regarding liability, the partners are all responsible, with all the goods

that they possess, even if they are unrelated to the business, because the law stipulates that businesses in partnership together and unlimited partners are responsible for the debts incurred by the business. Because each partner may change the requirements concurrently, partners involved in the same project (partnership) need to apply proper conflict resolution to ensure that the system as a whole settles down into a consistent state [27]. The choice of partners is very important when aiming to increase the competitiveness of SMEs. Prospective partners must possess a number of advantages specific future needs of the organization, such as: the contractual terms, communication and collaboration skills, products and services at competitive prices, availability to technological changes, flexibility, compliance with quality standards, etc. [25].

The validation of the shown Business Partnership & Partners Evaluation at the SMEs level solution designed to establish the risk level in collaborative infrastructures is based on knowledge bases used for partner's selection and evaluation at the SMEs level in many research projects. The knowledge-based system for the partner's evaluation and selection presented in this paper was implemented at UPB, Department of Engineering and Foreign Languages and the UPB-PREMINV&CTTM research centers.

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