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**STRENGTHENING
THE INTERNATIONALISATION
AND COMMERCIALIZATION
OF CLUSTERS AND CLUSTER
ORGANISATIONS BY UPGRADING
MANAGERIAL COMPETENCIES: SELECTED
CASES FROM POLAND AND LITHUANIA¹**

Abstract: Clusters are no longer local or regional phenomena, being more and more often internationalized through affiliated companies in the cluster or by the behaviour of cluster organizations. The whole process is accelerated by new political concepts such as smart specialization as well as the striving for cluster consolidation and the concentration of financial support. In turn building strong cluster organizations requires the acquisition of skills to create added value for which the cluster members are willing to pay. Both processes of internationalization and commercialization require the acquisition of competences by the managers of clusters. The aim of this article is to analyse the level of competencies of cluster coordinators in Lithuania and Poland as far as the internationalisation and commercialization of clusters are concerned. These competencies influence cluster performance, both on the internal and international market. The survey results along with an analysis of the available cluster materials revealed the scale of the gap between the existing and desired competencies of cluster managers in both countries. The paper ends with a set of recommendations for cluster coordinators with

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the aim of strengthening the processes of internationalisation and commercialization in clusters; thus building strong and effective cluster organisation as well.

Keywords: clusters, internationalisation, commercialization, management performance, skills, competencies.

JEL codes: J440, M210, O290, P460.

Introduction

Clusters and business networks are an important component of economic reality responsible for the competitiveness of regions and countries. Companies which are cluster members are more innovative, more and more often introduce new products and new technologies and go beyond domestic markets and thus internationalize. Internationalisation always refers to the process of acquiring new knowledge and exchanging good practices [Jankowska 2010]. The internationalisation of clusters has many dimensions and can be measured in various ways [Albaum et al. 1989; Geringer, Beamisch, and da Costa 1989; Rymarczyk 1996]. This can be perceived through the internationalisation of cluster members, but also through the internationalisation of cluster organisations themselves. In both cases the skills, competencies, knowledge and experience of the cluster coordinator are important, but in the second case they are crucial. Cluster members can internationalise (and in fact they do) at various speeds depending on the potential and capacity of each particular company, its goals and strategic objectives, as well as to some extent on external factors such as the economic situation, economic policy, etc. The internationalisation of a cluster organisation is most commonly facilitated by the cluster coordinator. The set of advantages from internationalisation is broad but the most important benefits for cluster members are [Tactics 2012]:

- Access to knowledge, innovation, technologies;
- Access to new markets;
- Access to infrastructure (like laboratories);
- Access to new, international business partners;
- Raise the company's profile.

Also cluster organisations benefit mainly through raising the profile of the organisation, access to international partners, opportunities for running new projects, the exchange of knowledge and good practice and finally opportunities for benchmarking.

Clusters have to internationalise because of the dynamic situation in the contemporary world which is due to globalisation and growing competitiveness but also to economic policy and regulation. The European Union introduced a new strategic approach to economic development through targeted support for research and innovation – Smart Specialisation. The underlying rationale behind this concept is concentrating limited resources and linking them to a limited number of priority activities thus having greater effectiveness as well as staying competitive in a globalised economy [European Commission 2013]. Implementing the smart specialisation concept into national policies has an influence on a variety of activities at the national level (like setting the National Key Cluster and allocating them a large share of public support) which in general leads to the following consequences:

- stimulates consolidation in the sector;
- increases the concentration and effectiveness of public spending;
- stimulates interaction, knowledge flows, the building of social capital;
- stimulates clusters and in particular cluster organisations to internationalize and build strong international connections;
- increases the importance of inter-organisational connections between clusters and other organisations like public administration, R&D institutions and others.

To survive clusters have to develop and build organisational capacity based on an international environment as well as research and innovation. While in West European countries we can find large cluster organisations with hundreds of members, research facilities and solid incomes; in Lithuania and Poland such clusters are rare. Building organisational capacity, and in particular the ability to compete in a globalised world, is a long-term process most commonly achieved with the assistance of public support. Not many cluster organisations, in either Lithuania or Poland, have created a set of services for cluster members that enables them to gain income and survive without public support. Neither are many engaged in large and gainful international projects. These clusters are only just starting to learn how to commercialize their activities and services.

In both cases internationalisation and commercialisation and social capital gained within the cluster plays a key role. Cluster managers and facilitators are most important in setting goals, strategies and performing cluster activities. The author argues in this paper that cluster managers in Lithuania and Poland are not well enough equipped with the skills to enable the successful internationalisation of their organisation and its members. They are even less prepared for cluster commercialization. These

two theses are investigated in the paper by analysing the research findings from the Leonardo da Vinci Project.

1. The sample

Clusters from Poland and Lithuania took part in the survey. In the literature there is a distinction between business networks and clusters. According to the definition of Palmen [2009] business networks are specific forms of linkage between various actors from the economic scene based on interdependencies, cooperation and trust. Networks can be called clusters if we give them one additional attribute – spatial concentration. Palmen explains that though there is cooperation between the actors in a business network, in a cluster we can additionally include competition between the members as well as spatial proximity. Both phenomena also differ in the way they are formally connected – clusters have fewer formal connections but a greater variety of entities. According to Ketels [2003], clusters must have four basic attributes:

- spatial proximity – companies and other entities have to be located near to each other, so that there can be the possible joint use of common resources;
- connections – between all the actors in terms of their desire to achieve common goals;
- interactions – between all the actors, though not in a formal but practical sense;
- number of actors – the number has to be large enough to create a so-called critical mass.

Table 1. List of clusters participating in the project

Poland	Lithuania
Architectural Glass Cluster	Kaunas Airport
ECDF mCluster	Food (Fruit and Vegetable) Cluster
Lubuski Metal Cluster	Technopolis
Metal Cluster from Bialystok	Anyksčiai tourism cluster
Poznan Educational Cluster	Bio-power Plant Development Cluster and FORIS consulta
Speed up	
Wielkopolski Cluster Mebel Design	

Source: Own study.

It is difficult to assess what number of actors is enough to achieve this critical mass, in practice there is no set number, but each network has to be described differently with regard to its potential and capacities.

The study covered 7 clusters out of 192 identified in Poland, and 5 out of 46 officially registered in Lithuania. The specification of the clusters is presented in Table 1.

All the organisations identified in the project met the basic criteria established by the Consortium, which means that they had the following characteristics:

- the cluster was established and had membership,
- the cluster had a clearly-defined and committed management team,
- cluster members and managers had at least some English language ability,
- clusters were interested in internationalisation,
- clusters represented a range of regional and geographic membership,
- clusters had only a limited online presence or were interested in expanding and improving their online presence,
- cluster members were export-oriented or interested in exports,
- could benefit from and be interested in working with Polish/Lithuanian clusters,
- cluster members and managers had to be committed to participating in the project.

In most cases networks have all the attributes of a cluster [Ketels 2003; Porter 1998].

2. List of competencies

In the literature one can find different understandings of competence. Boyatzis [1996] described it as the underlying characteristic of a person that leads to or causes superior or effective performance. Loven-dahl [1997] argues that competency can be seen as an overall concept covering all aspects affecting the ability to perform a given task and exists both at the individual level and the collective or organizational level. UNICEF [2014] describes the various competencies as the knowledge, skills, capabilities, attitudes and behaviours that are directly related to the successful performance of a job. They recognize four types of competencies that can influence individual, team and organizational performance:

- key competencies – crucial for all cluster coordination staff;
- team competencies – required for cluster coordinators in facilitating clusters to operate as a team;
- functional competencies – cover the specialized knowledge and expertise of cluster coordinators;
- leadership and management competencies – required to lead the organization.

The most common features of competencies are usually: knowledge, skills, attitudes, personal abilities, experience and behaviours [Walkowiak 2007]. Each phase of the clustering process requires a different combination of skills which is rightly noted in The Cluster Policy Whitebook [Andersson et al. 2004].

The InterCom project established a competency approach for both the initial needs' assessment as well as the final assessment for the cluster and business network coordinators who participated in the project. The focus was on functional competencies (as UNICEF sees them), since they are the best subjects for training and easy to evaluate afterwards. Competencies were considered as a mix of skills, experience and knowledge which demonstrate superior performance in a specific role or function. The InterCom competencies were selected using the following process:

- A detailed analysis was implemented of the project requirements and the competency definition as it relates to this project.
- A literature search was implemented for competencies and NVQs (National Vocational Qualification), along with related skill frameworks for clusters.
- A draft list of 25 competencies was published and later revised to a final set of 8.
- A separate Self-Assessment Method was prepared which provides a detailed framework for the evaluation process.

The initial and final lists of competencies defined are seen in the table below. The revisions were based on the network partners' evaluation of the current situation in clusters and business networks. The revised list comprises competencies that, on one hand are required to successfully internationalize and build strong organizational capacity through the commercialization of services, and on the other could be the subject of training within the framework of the Consortium members' areas of expertise. The choice was based on cluster managers' expectations, substantive analysis and the literature findings. According to the INNO-NET CEE-ClusterNetwork research findings [Hawrysz 2011] the most important competencies for cluster manager are communica-

tion and negotiation skills, no matter whether clusters operate on the domestic or also on the international market. As a cluster organisation expands abroad it has to acquire the indispensable skills to apply for, manage and cooperate on projects at an international level. To offer services that increase the budget of a cluster organisation one has to know how to analyse prices and budget projects. To internationalize one has to promote a cluster abroad, the cheapest (and most sophisticated) way of doing this being online marketing promotion. Other competencies could be considered as key competencies for internationalisation and commercialization but the Consortium decided to focus on 8 skills due to the limited time planned for the training sessions.

Table 2. List of competencies considered in the project

Initial List	Revised List
1. Analytical Thinking 2. Budgeting and price analysis 3. Business Systems Thinking 4. Client Service Orientation 5. Communication Skills 6. Computer Use Ability 7. Confidence and Self-Discipline 8. Corporate Communication and Relationships 9. Decision Making 10. Employee Development 11. Ethics and Integrity 12. Innovation 13. International project cooperation 14. Marketing and promotion 15. Negotiation 16. Online marketing promotion 17. Performance Management 18. Persuasion 19. Problem Resolution 20. Project funding application 21. Project Management 22. Resource Management 23. Strategic Planning 24. Teamwork 25. Work Achievement	1. Communication Skills 2. Negotiation 3. Project Management 4. Project funding application 5. International Project Cooperation 6. Budgeting and Price Analysis 7. Marketing and promotion 8. Online marketing promotion

Source: Own study.

3. The methodology of the analysis

The coordinators and facilitators of the clusters were invited to take part in the project and complete the survey the aim of which was to assess managerial competencies in terms of internationalisation and commercialization. The general analysis procedure was as follows:

- The InterCom researcher informed the participating manager that a brief competency assessment and discussion would be held to evaluate their current view of job performance and requirements. This took about 1 hour.
- The InterCom researcher explained the structure and questions in the assessment form in a personal meeting or, if not possible, through a Skype call. It was important to note that this was not a test but was intended as an honest evaluation of the current situation that (on an individual level) was not going to be shared with an employer or any other person outside the project.
- The researcher filled out the questionnaire, asking questions if necessary.
- The questionnaire was collated for further evaluation.
- The researcher gathered additional information drawn from secondary source documents.
- The researcher reviewed his/her observations.
- The researcher and trainers combined all the information and drew conclusions.

The evaluation included a numerical evaluation of the scores together with a qualitative evaluation of the comments. It was intended above all to illustrate the actual situation within the cluster and explore how this situation influenced personal behaviour and performance.

The sample size was admittedly too small for cross-comparisons. Instead the researchers decided to extract critical information concerning internationalisation and commercialization. For instance, how many clusters' members internationalize? Do the cluster organisations run international projects? Do they contact their international partner organisations? How many services do cluster organisations offer to cluster members? The results were evaluated and presented together with a detailed needs analysis and training plan.

Due to the small group of selected managers the authors abandoned a statistical analysis of the data, limiting the analysis to a qualitative analysis. Thus in the analysis the following methods and techniques were used:

- questionnaire interview,
- analysis of secondary source documents,
- direct observation.

The basic tool for obtaining information was a questionnaire interview – oral/written interview, explicit, individual, categorized (based on the questionnaire).

In the questionnaire most competency sections on clusters have two types of self-assessment:

- 1–5 scale, which gives a numerical value that can be measured;
- „essay response” box, which allows the checking of intangible factors that cannot be measured for each participant in the same way and also allowed the researchers to obtain more information on the specific status of each manager and organisation.

In situations where the relevant data was inaccessible (specific numbers, structure), the expert interviewer had to obtain supplementary information from secondary documents. This analysis was used primarily for obtaining additional information about the clusters and the managers recruited for the project. Indeed depending on the level of particular cluster development, specific managerial competencies are required to manage the cluster efficiently. The basis for the source documents was primarily:

- documents on the monitoring and evaluation of regional innovation strategies;
- databases (such as a database of projects financed from structural funds) at the disposal of PARP, business development departments, and the regional policies of various Marshal Offices;
- cluster reference websites;
- existing databases, such as that of the Polish Agency for Enterprise Development (Innovation Portal Pro Inno Europe, the European Cluster Observatory);
- analysis and research on clusters carried out by different research units (literature analysis).

Observation was a supporting method complementary to the basic survey made by questionnaire interview. It was also the primary method for obtaining information and a necessary technique to identify an appropriate level of competence. Obtaining reliable and complete information about the level of competence of managers required a dedicated time of about 1–2 hours. This time was indispensable for completing the interview, further discussion, as well as observation and an analysis of the source materials (such as cluster development strategies, promotional materials).

At the same time the prior preparation of the survey respondents was indispensable, which included the rationale for the implementation of such an analysis, an explanation of the purpose of the study and an indication of the benefits of participation in the project. This took place mainly at a meeting with representatives of the clusters. The action was also necessary to obtain quantitative data before the visit to the cluster and conducting interviews. This facilitated (both for experts and respondents) the interview in the cluster and also made it easier to obtain reliable data.

4. The results

4.1. General overview of the results

From the questionnaire and associated interviews one can draw the following general conclusions concerning the internationalisation and commercialization of clusters:

Internationalisation is a Long-term Process

Most cluster project managers are focused on short-term priorities, typically revolving around specific project initiatives associated with the funding grant on which their cluster is based. These initiatives tend to be ad-hoc, not strategic and determined by the availability of funding. Thus initiatives include:

- attending international trade fairs,
- commissioning market research on international market segments,
- translating or adapting their promotional materials into foreign languages.

There is need for a strategic, longer-term approach towards internationalisation which is not linked to a specific project initiative but to an outcome.

Internationalisation is done at Varying Speeds and Commitment Levels

Most clusters use a single project approach, focusing on specific projects and assuming that all cluster members are equally ready to internationalise. One can infer from experience that this cannot be the case. Some cluster members will already be more international than others and have the capability to expand still further. Others will not. In particular micro-enterprises may have limited resources and limited management capacity to internationalise over time. It is important to review how cluster managers

are defining firm-specific approaches to internationalisation in these companies.

Internationalisation is Multi-faceted

The full range of internationalisation includes a range of initiatives, including IP protection; joint R&D; subcontracting; alliances; full market entry; etc.. It is also a two-way process: it involves the export of goods and services as well as their import. The initiatives aforementioned tend to be superficial, one-time events or efforts. They have to be systematic and repeatable, based on a long-term strategy.

Commercialisation is Relatively Unknown

The range of commercialisation initiatives remains very limited. Cluster managers feel constrained from developing initiatives which seek additional income from members. The same problem as with internationalisation exists: not all members are willing to pay for additional cluster services. The process of creating trust and coherence between cluster members is extremely important. There is also a lack of suitable intellectual property laws and various barriers to public incentives in commercialization. Links between cluster members from the SME sector are almost non existent.

Economies of Scale are Necessary

Most clusters have a small number of members and these have often been drawn together due to public finance initiatives. It is extremely important that clusters grow so that they can attain the economies of scale to undertake meaningful, long-term initiatives.

4.2. Results in particular areas:

There were eight areas of competencies identified in the questionnaire as well as in the analysis. The main results are as follows:

Communication

Communication problems are at the heart of many workplace problems and the end result is a loss of trust, teamwork and productivity. According to the survey results, internal communication in clusters is considered as a well-functioning system. The most common barriers come from the differ-

ences in background or experience. Without some common ground, companies may find relating to or understanding what other cluster members are talking about difficult. Another common problem is the lack of a communication standard in the cluster. Establishing a communication policy to standardize the methods used for communicating with both the cluster's members and customers would certainly improve the performance of the cluster. Communication is an offshoot of trust – the greater the confidence that exists amongst cluster members, the more effective is the communication. In international relations the experience of the cluster coordinator and his/hers connections abroad are crucial. Going to international fairs, conferences and other events increases the chance for establishing new connections that can be fruitful in further internationalisation.

Managers are interested in further training in communication; however, they do not describe any communication problems in the organisation. They use common communication tools, social media included. The scores were not as spread out as in other areas (Figure 1). Most of the managers speak foreign languages (at least one), using them both in verbal and written communication. In terms of internationalisation, speaking foreign languages seems to be crucial.

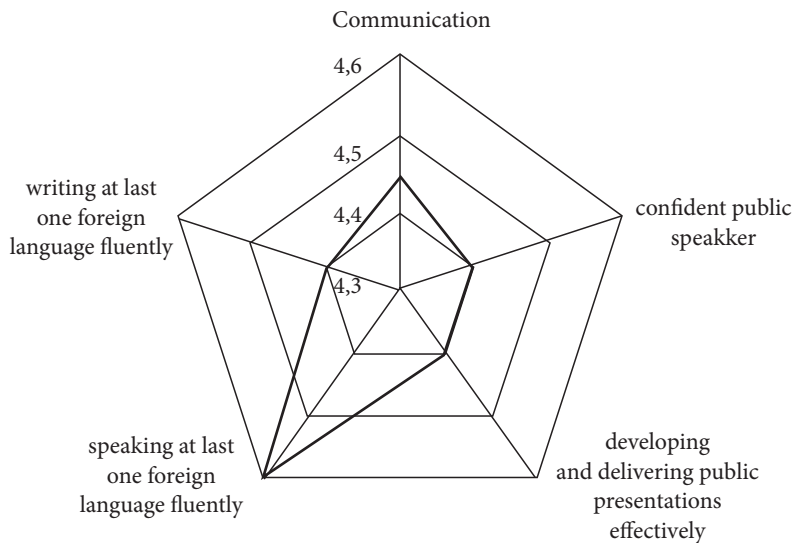


Figure 1. Communication

Source: Own compilation based on the questionnaire study

Negotiation

The approach towards negotiation is not formalised. In most of the networks coordinators solve problems ad hoc having no initial strategy. All the managers questioned strongly agreed about the existence of many crises and conflict situations in their organizations. In the majority of cases analysed they handled the process of solving crises alone, but most managers are not prepared professionally for negotiation and problem resolution. The skills are mostly based on personal experience or traits and are not supported by professional training covering these topics. None of the managers could describe any theory of negotiation. Most of the conflicts and problems described referred to poor cluster performance and looking for the one responsible and whom to blame for a situation that occurred. None of the conflicts were solved using any methodology, which suggested putting an emphasis on delivering such methodology in the planned training sessions. Problems are common but solving problematic situations depend on the individual skills of managers (assessed quite high – Figure 2) rather than on a particular systematic approach. Managers are not prepared to negotiate commercial contracts either, especially international ones. Depending on their educational background coordinators try to ne-

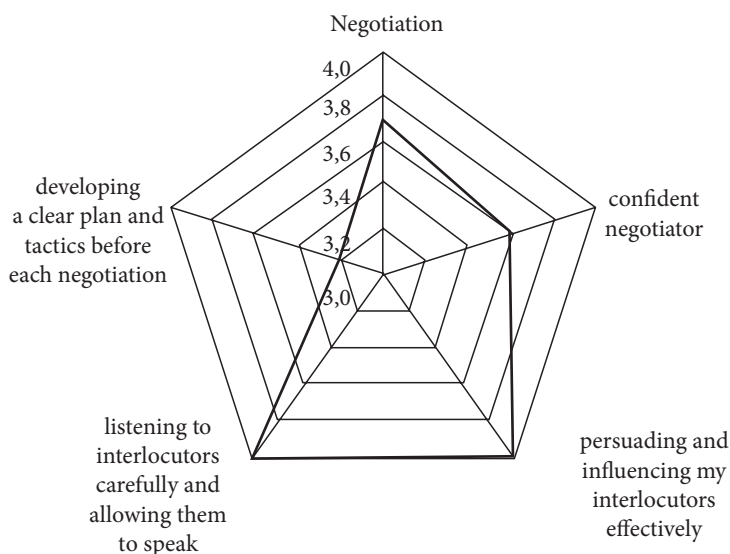


Figure 2. Negotiation

Source: Own compilation based on the questionnaire study above in diagram – negotiation

gotiate contracts with business partners; in most cases the process ends at the initial stage and further discourse is led by the potential or fully engaged companies – members of the clusters. The lack of any negotiating skills severely limits the number of services that can be offered to cluster members since they are based on negotiations with other companies (e.g. joint purchasing schemes).

Project management

Delivering projects on time and on budget is a minimum requirement in doing business for most organisations and in many industries it is critical to long-term success. Companies that adhere to strong project management methods, including detailed evaluation of scope and budget, on-going risk management and measurement of project results, are consistently more successful than those that do not. An impressive majority of the managers questioned say project management is critical or somewhat important to their ability to deliver successful projects and remain competitive. But not even half of them follow formal project management practices in large or complex projects and few use a standardised set of project management tools including enterprise-level systems. However people tend to assess their performance better than any objective evaluation would allow. Their project management skills are not an exception. Also in this area the managers questioned declared they were better prepared than objective criteria would indicate (Figure 3).

None of the managers was a certified project manager and none of them could describe at least three PM methodologies. This was visible in the strong disagreement of respondents with regard to the existing system of project management in the cluster. Contemporary organizations operate through projects which have been confirmed after examination. Every cluster runs a few projects every year. Managers usually use some techniques and tools when managing projects; however in most cases they have no idea that these tools, methods and procedures are a part of a more or less sophisticated methodology. So, in most cases, they set objectives, organize work assignments and plan work packages, associate resources with tasks and plan budget distribution. But there is a lack of methodology as well as fixed procedures which would be a kind of guarantee when problems occur. More than half of managers say their company is continuously looking to improve its project management methods but that they lack focus and consistency. Only half plan to improve project management practices and apply

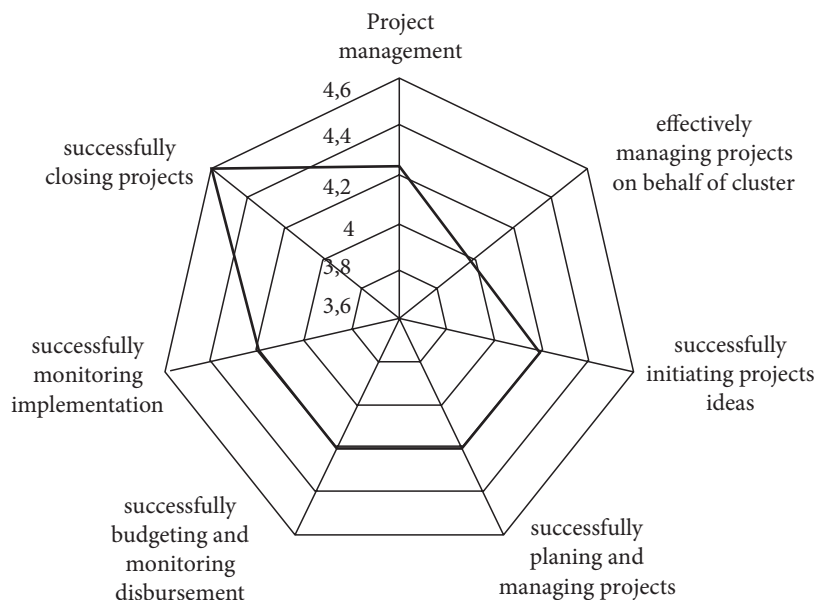


Figure 3. Project management

Source: Own compilation based on the questionnaire studying diagram planning

them uniformly across all projects, as well as to standardise the use of project management tools to increase efficiency and collaboration. None of the organisations use software for project management, although in some cases systems have been implemented. Even the most developed cluster in the group, however, does not prepare any contingency plan, evaluation or monitoring system. Managers are so engaged in day-to-day operations that they do not use procedures even when necessary. They do not have any qualifications in project management either. This hampers the running of joint projects with international partners as well as launching business initiatives inside the cluster.

Project funding application

There are a number of reasons for project failures. Some of the most important are:

- weak requirements' analysis and/or requirements that change after the project starts;
- insufficient estimation efforts, resulting in schedules and budgets that are too optimistic;

- inadequate resources, e.g. lack of skills, delayed assignments;
- insufficient risk/opportunity management, e.g. resulting in a lack of preventative measures such as headings, insurance, back-to-back agreements.

All these aspects can be prevented through dedicated training in project application. Mature project management practices can address all these challenges and will strongly contribute to projects that meet stakeholder expectations.

According to the survey results more than 80% managed EU funded or nationally funded projects on behalf of clusters effectively; almost 80% monitored grant calls and responded to grant opportunities in time; but 20% of the clusters analysed had problems with writing project applications, understanding project budgeting and never used Gantt charts or log frame matrices, and 80% wrote technical and financial project reports effectively (Figure 4).

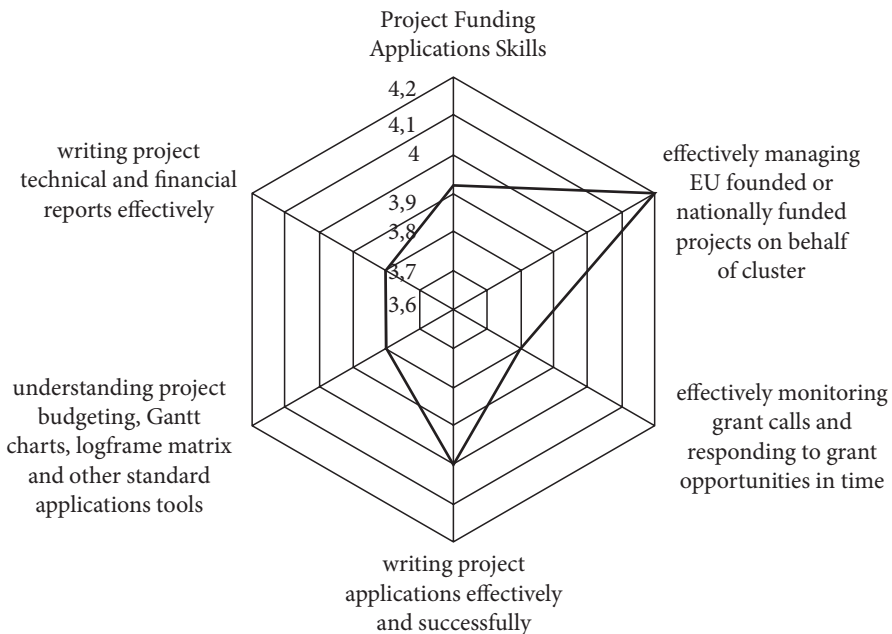


Figure 4. Project Funding Application Skills

Source: Own compilation based on the questionnaire studying diagram technical and financial/ EU funded

International Project Cooperation

Cooperation skills are critical for one's effectiveness as a manager or entrepreneur. Even if a person is not yet in a management or leadership role better understanding of team work and cooperation can make him/her a more effective employee and give him/her an extra edge in a corporate office. The role of cooperation both for day-to-day cluster performance and project cooperation seems to be underestimated by respondents in the group analysed. Support for this idea was evident, but not explicitly stated, in both countries. Managers have also not stated that most day-to-day performance is done in teams rather than by individuals. As a consequence managers are not leaders of teams and do not participate in team meetings either. There is a certain lack in the organisational culture which does not support, inspire and facilitate teamwork. There are regular meetings with teams in most clusters reviewed but there is no established system of monitoring and encouraging the team to work more effectively. No such system exists with regard to international project cooperation either. The main issue that was raised is that it would be interesting to learn different forms as well as opportunities for teamwork, especially in networks where the organisation is

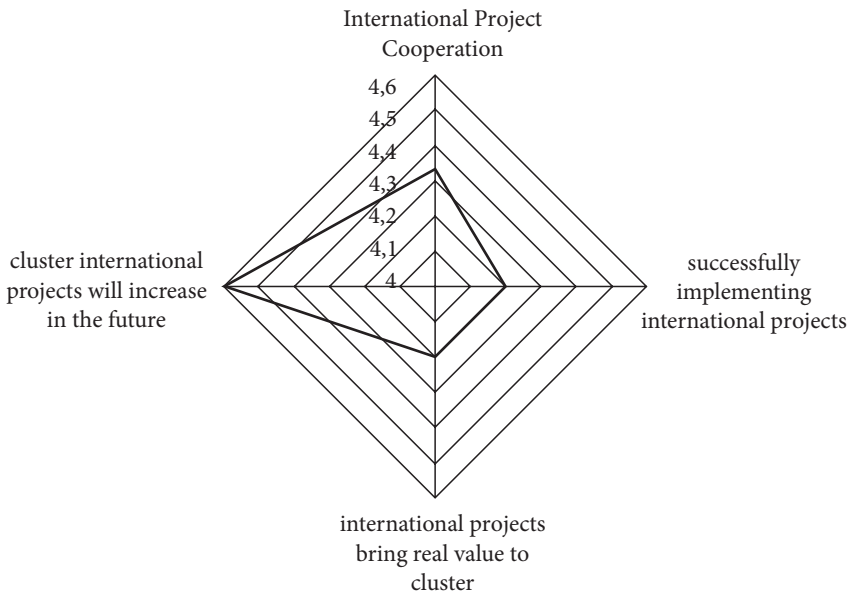


Figure 5. International Project Cooperation

Source: Own compilation based on the questionnaire study

virtual. All the cluster managers surveyed want to increase international cooperation in the future and more than 60% implemented international projects successfully. Projects bring real value to 60% of clusters (Figure 5).

Budgeting and Price Analysis

According the survey the most common problems with budgeting and price analysis are:

- Budgets provide poor value to cluster members. They do not recognize the cluster's budget as their own, thus do not feel it necessary to contribute.
- Budgets are too rigid and prevent a quick response – the budgeting procedures last too long, therefore there is a lack of suitable elasticity.
- Budgets protect rather than reduce costs – not spending the budget is a cardinal sin in most of the organisations. As a result it is difficult to reduce costs.
- Budgets are divorced from strategies – quite often the strategy does not correspond to the budget.

The information received shows that only 20% of the participants surveyed had a comprehensive budget for their cluster and only 40% knew the break-even rate for the cluster and used different revenue streams and scenar-

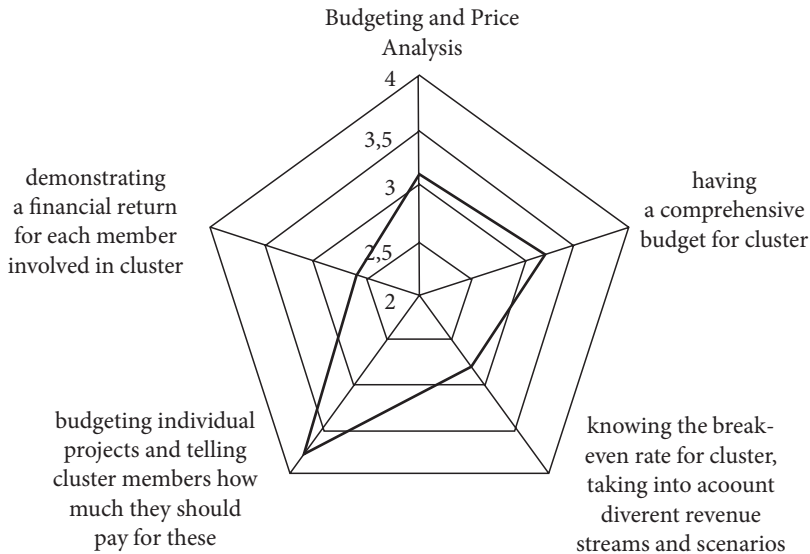


Figure 6. Budgeting and Price Analysis

Source: Own compilation based on the questionnaire study

ios. Almost 80% budgeted individual projects and told cluster members what rate they should pay, but not even 20% could demonstrate the financial return for each member involved in the cluster (Figure 6).

Marketing and promotion

As the world of marketing and promotion continues to expand even the most savvy marketing manager has a tough task ahead to keep up with recent developments in the promotion and marketing arena. All the participants effectively promoted cluster services, with 80% understanding and promoting the unique sales characteristics of cluster members, but more than 60% could not demonstrate the financial and non-financial return on investment for cluster services and only few had a clear promotional strategy for their cluster (Figure 7).

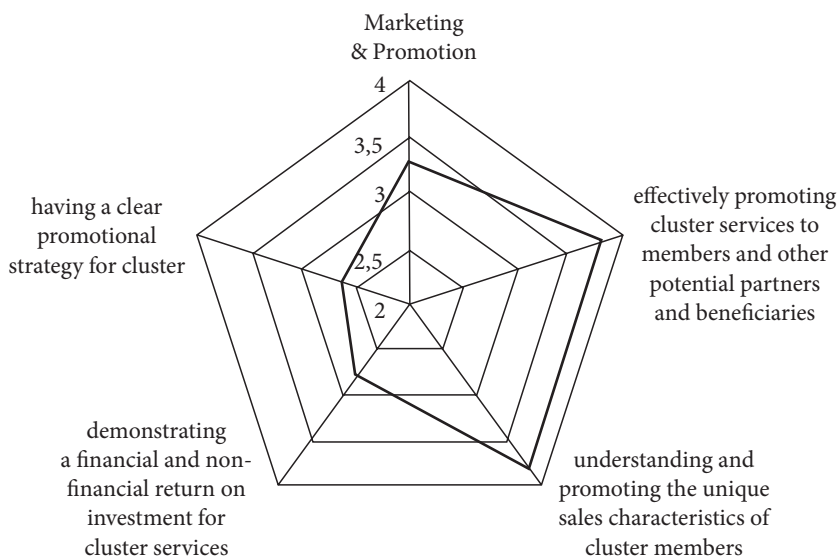


Figure 7. Marketing and Promotion

Source: Own compilation based on the questionnaire study

Online marketing promotion

Online marketing uses internet-connected devices to engage consumers with online advertising primarily through pull or push methods as on-line marketing mainly consists of pull or push online communication tactics. These tactics can also be referred to as inbound or outbound marketing

as well. Pull online marketing is characterized by consumers actively seeking marketing content. Push online marketing occurs when marketers send messages without the consent of the recipients. Examples of pull online marketing include search engines, email newsletters and text messaging; whilst push online marketing consists of opt-in subscription services.

According to the results of the survey this is the least developed ability. New information was very rarely added to the cluster website, only 20% of those surveyed optimising content with keywords and other search engine techniques, the same number using Google analytics and google webmaster tools or an alternative platform to monitor web analytics, but less than 20% utilising a newsletter (Figure 8).

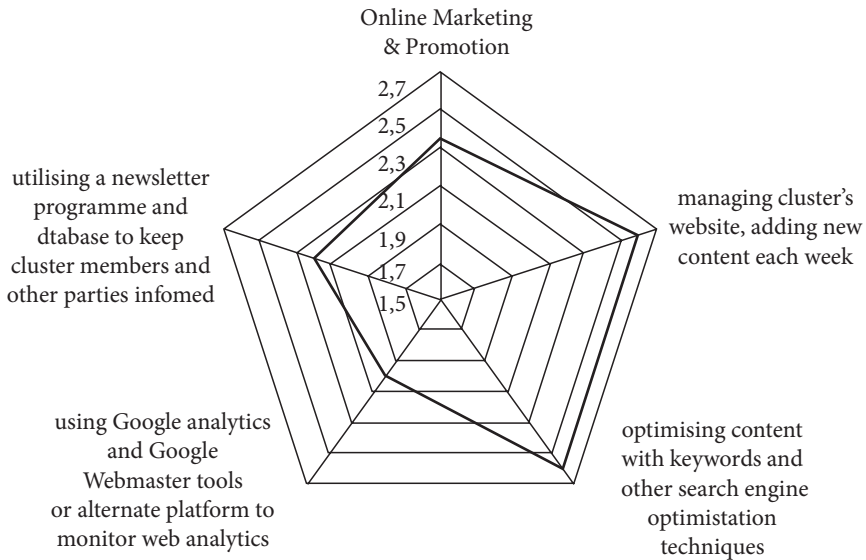


Figure 8. Online marketing and promotion

Source: Own compilation based on the questionnaire study

Recommendations

Looking at the survey results, as well as the feedback after the training process, some recommendations for cluster managers can be formulated. These are as follows:

- *Managers have to continuously upgrade their skills and competencies; the learning process is an on-going one which never ends.*
- *Managers have to internationalise the activities of a cluster; in our contemporary, globalised world even small companies have to internationa-*

- lise, otherwise they will remain small local organisation and die in the first wave of any crisis.
- *Managers have to facilitate the process of internationalisation*; the internationalisation of the cluster organisation is the task of the cluster coordinator, though companies expect to be given a helping hand in the internationalisation of their activities – this can be in a form of applying for EU grants, delivering foreign market research, preparing market expertise, calculations, etc. The first step however is an internationalisation strategy which should be prepared with the support of most of the stakeholders involved.
 - *Managers have to involve companies more into the cluster's activities*; members that are not involved do not perceive being in the cluster as of value.
 - *Managers have to activate cluster members*; the stakeholders in a cluster are generally not involved in the cluster's activities since they do not see many benefits from such cooperation. The manager has to convince members that cooperation is beneficial and encourage the undertaking of joint initiatives because building strategic plans for a cluster requires the participation of all stakeholders, otherwise it will become another redundant document on a shelf.
 - *Managers have to build awareness with respect to clustering and the advantages of cluster membership*; in most cases the companies gathered in clusters are not aware of all the benefits they can derive from clustering. In reality cluster coordinators do not offer much added value in terms of membership services, which depreciates the value of the clustering idea itself, so managers have to develop an array of services which can attract new companies into a cluster.
 - *Managers have to seek alternative solutions to the public funding of clusters*; clusters in Poland and in Lithuania too often rely on public funding so when the money dries up cluster activities end. Such a policy for supporting clusters is beneficial on the one hand and enables a cluster to survive in the early stages of its existence, but at the same time it creates artificial clusters too much addicted to public support. Managers have to encourage stakeholders to co-finance the activities of a cluster then they will also be much more engaged in the evaluation of cluster performance.
 - *Managers have to build trust amongst the members*; only trust can facilitate effective communication which can increase the chances to internationalise. SMEs sometimes do not have sufficient capacity to interna-

tionalize but by combining efforts can be a reliable entity for international partners. Trust also diminishes the threat of competition between companies from the same sector.

- *Managers have to work on improving innovativeness*; performing in a globalised world means strong competition, where innovation can create a competitive advantage in the market, so cooperating with R&D institutions and public administrations, as well as applying for innovation grants are activities that can enable internationalisation.

This set of recommendations does not cover all the aspects of coordination but focuses on the most important tasks.

Conclusions

According to the survey results, but also findings of the literature, there is no doubt that there is a serious gap between the desired and existing competencies of clusters managers. Partially it is due to the complexity and variety of tasks they have to perform or often due to low financial compensation in the sector. However there are other factors. Managers of cluster and business networks have to take care of every day activities, seek and apply for external funds, run various projects, construct budgets, deliver services to cluster members, negotiate contracts, promote activities of the cluster organisation, plan, implement and evaluate activities of the network. They have to monitor business trends and changes of technology as well as coordinate intersectoral relations [Lämmer-Gamp et al. 2014, p. 8]. The convergence of industries and technologies is more and more visible and it is becoming one of the main challenges for cluster managers. To meet the objectives and expectations of its members, cluster organisation must have an efficient communication system, as well as tools to perform all tasks. In the globalised world managers have to focus on the competitiveness of their organisation using limited resources to keep or increase their competitive edge. It is obvious that the internationalisation of clusters and cluster organisations is the main challenge that clusters in Europe, and in particular in Lithuanian and Poland, face today. Many processes in the contemporary world, along with economic policy and the many European initiatives, increase the importance of competitiveness; of which the ability to internationalise is one of the main factors. The degree of internationalisation varies significantly between clusters. The whole process is much more effective if the cluster management is responsible for the

process [Meier zu Köcker et al. 2011]. But even then managers must possess suitable skills and competencies to overcome most common barriers towards internationalisation, which are the information deficit about foreign markets, lack of money to invest in external reports or services, lack of an internationalisation strategy or corporate planning which is an even more complicated problem that one can face as far as cluster commercialization is concerned. Large and mature clusters and business networks cope relatively well with that problem but small organisations have too limited resources to manage it effectively. The links between research institutes and SMEs are almost non-existent, there is lack of innovation brokers, but also, in most of the cases, a lack of innovative products that have sufficient potential to attract any funds. Cluster members, especially from the SME sector, are not eager to pay additional fees for any service that a cluster manager could arrange. Managers overwhelmed by their everyday duties have not enough time to organize external funds to finance the additional tasks. Economies of scale are really important as far as internationalisation and commercialization of clusters are concerned.

Due to new EU and national politics as well as the new financial support schemes for clusters in Lithuania and Poland, aimed at achieving greater concentration and effectiveness for that support, all clusters that do not become key clusters will have less access to public support. Building organisational capacity will require even more skills and knowledge, first of all offering an array of services that companies will be willing to pay for, whilst recognising their value. Economies of scale are important since most services are effective when they reach a minimum turnover. As many clusters in both countries are small and cover small areas it will sometimes require sector consolidation. According to the research findings cluster managers are generally not prepared enough for dealing with such difficult circumstances and they need training. The greatest deficiency is in online marketing promotion, but other competencies are not assessed much higher either.

Another threat is that clusters with limited financial means will not be able to attract highly skilled managers who will need a reasonable salary for his/her services. Cluster organisations that are cut off from public support and do not commercialize successfully will be eliminated from the market in this way. The question that remains, and which has to be considered in the wider public debate, is whether this process can be perceived as just “cleansing the market” from inefficient organisations or a detriment that could incur some social costs.

References

- Albaum, G., Strandkov, J., Duerr, E., Dowd, L., 1989, *International Marketing and Export Management*, Addison-Wesley, New York.
- Andersson, T., Serger, S.S., Soervik, J., Hansson, E.W., 2004, *The Cluster Policies Whitebook*, IKED, 2004.
- Boyatzis, R.E., 1996, *Human Resources Management*, Spring 1996, vol. 35, no. 1, pp. 119-131, John Wiley & Sons, Inc.
- Lämmer-Gamp, T., et al., 2014, *Cluster Collaboration and Business Support Tools to Facilitate Entrepreneurship*, cross-Sectoral Collaboration and Growth, European Commission.
- European Commission, 2013, *The Role of Clusters in Smart Specialisation*, Brussels, Directorate-General for Research and Innovation, https://ec.europa.eu/research/evaluations/pdf/archive/other_reports_studies_and_documents/clusters_smart_spec2013.pdf [access: 15.09.2015].
- Geringer, J.M., Beamish, P.W., da Costa, R.C., 1989, *Diversification Strategy and Internationalization: Implications for MNE Performance*, Strategic Management Journal, vol. 10, no. 2.
- Hawrysz, L., 2011, *Kompetencje managerów klastrów*, Organizacja i Zarządzanie, nr 4/16, Wydawnictwo Politechniki Śląskiej, Gliwice.
- Jankowska, B., 2010, *Internacjonalizacja klastrów*, Gospodarka Narodowa, nr 5/6.
- Ketels, Ch., 2003, *The Development of the Cluster Concept – Present Experiences and Further Developments*, *Prepared for NRW conference on clusters, Duisburg, Germany, 5 December.
- Løvendahl, B.R. 1997, *Strategic Management of Professional Service Firms. Series A*, Copenhagen Studies in Economics and Management 9, Handelshøjskolens Forlag, Copenhagen.
- Meier zu Kocker G., Müller L., Zombori Z., 2011, *European Cluster Go International*, Institute for Innovation and Technology, Berlin.
- Palmen, L., 2009, *Cluster your business*, http://sc.gapp.pl/pliki/cluster_your_business.pdf [access: 17.09.2009].
- Porter, M. E., 1998, *Clusters and New Economics of Competition*, Harvard Business Review.
- Rymarczyk, J., 1996, *Internacjonalizacja przedsiębiorstwa*, PWE, Warszawa.
- Tactics, 2012, *Tactics Internationalisation Handbook*, 2012, InnoNets Tactics, European Commission.
- UNICEF, 2014, *UNICEF Cluster Coordination Competency Development Strategy*, <http://gccu-induction-programme.wikispaces.com/file/view/UNICEF+C-LUSTER+STRATEGY.pdf> [access: 15.09.2015].
- Walkowiak, R., 2007, *Zarządzanie zasobami ludzkimi. Kompetencje, nowe trendy, efektywność*, Dom Organizatora, Toruń.