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Market Failure in the Information and Consulting Provision for Small and Medium–Sized Enterprises (SMEs)

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Abstract

In the paper theoretical foundations of market failure in the information and consultancy for small and medium–sized enterprises and then the application of this theory to test a market failure incidence were presented. The research target group were SME users of free, publicly funded or paid, private information and consulting services in the area of developing applications to the European Union program "Increasing Competitiveness of Enterprises 2004–2006". The methodology was based on two–stage telephone questionnaire (115 public and 109 private service users) as well as on in–depth and semi–structured interviews. Two types of market failure were identified, namely the underprovision of pure information and consulting and the strong information asymmetry. Complex institutional set up in applying for funds is a main reason for the asymmetry. Thus we can say that market failure in this regard has its origins in government failure. Other types of market inefficiencies, that is externalities and inadequate demand, were not proved.

Introduction

Within last 10 years we observe a rapid increase in the scope and number of information, consultancy and advice to assist SMEs in the European Union. A considerable portion of those services is related to the investment support and it is targeted at the transfer of know–how on financing principles, developing applications, and managing the EU projects. Information asymmetry have been reduced lately due to technological advancements, however it is still one of the market failures experienced by SMEs which, to a large extent, is caused

by complicated regulatory framework and large compliance costs. The real problem consists not in availability of information, but in information overload, quality of information and mechanisms for selecting relevant information. Proliferation of channels for transmitting it does not replace the need for direct, face–to–face communication that would enable selection of information and bundling it with knowledge exchange. The publicly funded (either fully or partially) provision of information and consulting services for SMEs is applied based on recognized market failures in this regard. On the other hand, the private service provision has developed in response to this new need in know–how on how to obtain the EU funds. Thus, there is a need for continuing evaluation research to confirm underprovision of such goods as well as to shape the design and role of public intervention relative to the existing private supply of business services.

The aim of the paper is to analyze theoretical foundations of market failure in the information and consultancy for small and medium–sized enterprises and then to apply this theory and test a market failure incidence based on own empirical research. The research target group were SME users of free and publicly funded or paid and private information and consulting services in the area of developing applications to the European Union program "Increasing Competitiveness of Enterprises 2004–2006". Methodology was based on the two–stage telephone questionnaire as well as on in–depth and semi–structured interviews.

The paper is organized in five sections, including introduction and conclusions. In the second section, theoretical framework for research design was discussed. The 3rd section presents the methodology. In the 4th section, empirical analysis and results follow, while the 5th section provides conclusions and recommendations.

2. Theoretical framework

The paper builds on the market failure theory combined with a concept of the information in the New Institutional Economics. The public support for SMEs is normally grounded in the market failure, which is inability of the market to provide certain goods or to ascertain optimal provision of those goods (Pearce 1996) or efficient allocation of resources (Samuelson, Nordhaus 1989).

Externalities were the earliest argument for market failure incidence. Since A. C. Pigou (1932) it had been admitted that in case of externalities such as insufficient supply of a certain good (for instance education, capital, or information) or in case of negative outcomes from economic activities (for instance environmental pollution) public subsidies or taxes had been justified (Rufin and Anderson 1996, pp. 24–29). In 70's and 80's of the XX century the market failure theory was extended by the arguments of information asymmetry, adverse selection and moral hazard which currently form a basis for assessing relevance of public intervention. Those concepts were developed within the New Institutional Economics (NIE), specifically the theory of transaction costs and agency theory. The problem of transaction costs as an outcome of market failure was raised in 60's and vigorously continued through 70's of the XX century. R. Coase had started the discussion with

the paper titled *The Problem of Social Cost* (1960). The contemporary research on the relevance of public intervention is largely focused on the problem of information asymmetry, insufficient supply of capital and externalities in the area of information, knowledge and technology (Audretch, Grilo and Thurik 2007, ppl–17). Below the basic characteristics of information according to the New Institutional Economics are presented.

2.1.Information concept in the New Institutional Economics

New Institutional Economics takes as a central point transaction costs, that is costs of negotiating and concluding a contract (Coase, 1937, pp. 390–391). These costs are largely affected by institutions as rules of the game. In the light of NIE, the information costs represent an important category of transaction costs. There is no equal distribution of information among the economic actors (principals and agents), i.e. the entrepreneur faces information asymmetry, which causes adverse selection, that is, using inadequate or insufficient information leading to suboptimal decisions (Demsetz 1969, Akerlof 1970). This adverse selection is not a consequence of information asymmetry alone, but it arises from the nature of information as experience good and sunk cost (Kasper, Streit, 1999, p. 55). The efficiency of the information search is thus challenged by the limited possibility to assess the quantity and cost of information required to make a decision, which is called the information paradox (Arrow 1971, Stigler 1967). In a complicated and non–transparent institutional set–up, the information search is even more difficult, increasing the overall costs of transacting business (compliance costs, among others) (Eggertsson, 1999, pp. 14–15). Thus, one of the important factors in reducing costs of information is improvement of the regulatory environment, i.e. institutions.

2.2 Market failure in the information and consulting for SMEs

Based on the above characteristics, among others, we can identify the four principal types of market failure in the area of the information and consulting for SMEs (Storey 1996, European Commission 2002, Kasper, Streit 1999):

1. Lack of supply or inadequate supply because no return (public good) or insufficient return can be made by the private sector (externalities).
2. Lack of demand or inadequate demand, which does not reflect existing needs (information asymmetry).
3. Unequal distribution of information and inefficiencies and discrepancies in the information exchange (information asymmetry).
4. Social benefits from the information exceed private benefits as the information spreads and impacts a larger group than direct SME beneficiaries (*externalities*).

Lack of supply or inadequate supply because no return (public good) or insufficient return can be made by the private sector (externalities).

Lack of supply or inadequate supply of information and consulting may be caused by a limited purchasing power of SMEs and by their sectoral variety. Inability to assign a price that would compensate for adjusting the information to asset specificity of the buyer with modest resource, discourages private consultants from serving small entities (Brusco 1992). When the information is commonly accessible (limited competition) and it is difficult to assign benefits and costs to one buyer (exclusion is impossible or limited) it takes the nature of public good (Samuelson 1955). Externalities are most common reason for this type of market failure.

Lack of demand or inadequate demand, which does not reflect existing needs (information asymmetry).
SMEs are less inclined to search the external information and consultancy than large companies because of thin resource as well as information asymmetry leading to adverse selection. SMEs may not recognize the need for knowledge even if the information and consultancy is subsidized. This requires providing the information and raising awareness of the need for the information at the same time (Bennett, Wicks, Coshan 1994, Curran 1993).

Unequal distribution of information and inefficiencies and discrepancies in the information exchange (information asymmetry).
Inefficiencies and discrepancies in the information exchange are caused by the information asymmetry, namely: 1) unequal knowledge between an SME and the service provider which may lead to transferring the information which is favorable to the agent (consultant) and not to the principal (entrepreneur) 2) inaccurate information held by both entrepreneur and consultant, 3) diffusion of incomplete and inaccurate information (European Commission 2002). Information asymmetry may exist on different levels and between different actors, causing adverse selection.

Social benefits from the information exceed private benefits as the information spreads and impacts a larger group than direct SME beneficiaries (externalities).
Benefits from the information can not be attributed to one individual and integrated into the service price because of the information spreading out and turning into the public good. Information and knowledge become a type of externality, i.e. club good (Buchanan 1965). Social benefits from the provision of information and consultancy are higher than private benefits, which justifies public intervention.
The above four types of market failure are not universal or common nor do they refer to all type of information, as there are types recognized by the content, utility and market pricing (such as marketing, financial, legal information and consultancy). The market failure in cases of many reduces or ceases with time, as information spreads and becomes experienced and valued on the market (Cowen 2002, pp. 3–28). Thus, the public intervention in this area should be proceeded by the careful recognition of potential market inefficiencies.

3. Methodology

The findings presented in this paper are drawn upon the more extensive research project titled "The Evaluation of Effectiveness and Efficiency of the Policy for SMEs" which was funded by the Polish Ministry of Science and Higher Education in the years 2006–2008. One of the evaluation criteria relates to the relevance, i.e. appropriateness of the public intervention in the specific area. In our opinion, the crucial aspect of the relevance is a sound justification of public spending in market failure incidence.

The research procedure was based on matching rationale consisting in comparing the outcomes of free and publicly funded versus paid and private services in information and consultancy for SMEs. Publicly funded services were delivered by either private or public–private organizations of business environment (associations, chambers of commerce, innovations centers), operating based on commissions from the Polish Agency for Entrepreneurship Development (PAED). The information and consultancy under study was focused on developing applications to Sectoral Operational Program "Increasing the Competitiveness of Enterprises 2004–6". The procedure involved the following steps: 1) acquiring secondary data on the program from public institutions; 2) telephone questionnaires among the users of public services in 2004–5, along with in–depth interviews with 5 user companies, 4 consultants, and program administrators at national (3 officials), regional (3 officials), and local (2 officials) levels (end of 2006); 3) telephone questionnaire with applicants – users of private and publicly funded information and consulting services to Sectoral Operational Program "Increasing the Competitiveness of Enterprises" funded by the European Union in 2005, along with semi–structured interviews with 21 companies – users of private or public services, 18 private or public consultants, and in–depth interviews program administrators at regional (3 officials), and local (2 officials) levels; 4) data processing, formulating recommendations.

The major primary data were collected through telephone questionnaires, with closed questions, using mainly nominal and ordinal scales. The first questionnaire was administered in the second half of 2006 and it was directed to users of publicly funded services in the years 2004–5. A final population of 546 companies was considered, based on a database from PAED, out of which a random sample of 250 companies was selected. There were responses from 75 companies – around 30% of the initial random sample and around 40% after exclusion of the businesses who failed or could not be contacted. The responses represented 14% of the population.

The matching approach for further research was identified through the interviews with the staff of the institutions managing public services who stated that there are market alternatives (competitive offerings) to their services. Thus, we decided to match publicly funded and private services in order to compare and assess them according to the evaluation criteria as stated by the European Commission (European Commission 2007, EC 1999). In this paper we limit our interest to the market failure incidence as part of the relevance criterion, as mentioned earlier. Since there are no databases of private service providers nor their users, we utilized the database of applicants, elimi-

nating the companies who were included in the databases of public service users. The second questionnaire was conducted in April–May 2007 and it was directed to applicants to the same funds in 2005, who were not users of public service, but were supposed to search the external information in the same period as the group of public information users. Based on the database from PAED, including 1038 applicants, after excluding users of public services, 564 non–users were considered, out of which a random sample of 300 companies was selected for the telephone questionnaire. There were responses from 109 users of paid private information and consulting services, that is, 38% of the random sample and 20% of the population. In the same phase, a random sample of 100 public service users was also additionally identified from the applicant database. It was to obtain a comparable number of responses from the applicants who utilized the publicly funded service, as within the group of 75 public service users there were only 40 applicants. Responses were given by 41 public service users, which is 41% of the random sample. Finally, the sample of public service users reached 115 entities (30% of the first random sample and 41% of the second random sample; 25% of the population), including 81 applicants. A random sample of private service users and applicants was 109 entities (38% of the random sample and 20% of the population). The matching approach in measuring the impact was based on comparing the samples of applicants – users of public (81 cases) with users of private services (109 cases). This was to avoid a bias of comparing with beneficiaries of public services who included both applicants and companies who did not submit applications (discouraged, non–eligible). The first sample of 75 companies was critical to understand the profile of customers of public information and consultancy, as we found considerable differences between the characteristics of public service applicant group (81 companies) and general group of public service users (75 companies). Thus, the latter was utilized exclusively to compare the customer structure for the both providers. The public and private service applicants had similar characteristics in terms of size, age of entrepreneur, location, sector, and development objectives in applying for funds.

The main research hypothesis was formulated as follows:
There are market failures that justify public intervention in the area of the information and consulting on the development of applications to the EU funds.
In order to verify this hypothesis, based on the theoretical background given in the 2nd section of the paper, the four principal types of market failure were investigated by addressing the following questions:

1. Is there a lack of supply or inadequate supply of the information and consulting in the area of application development to the EU funds?
2. Is there an inadequate demand for the information and consulting in developing the applications to EU funds?
3. Is there an evidence of information asymmetry (inefficiencies and discrepancies in the information exchange) in this specific area?
4. Is there an evidence of positive externalities from the public information diffusion?

4. Empirical results

Based on the research findings, the four questions, each relating to a separate market failure, are discussed below.

Is there a lack of supply or inadequate supply of the information and consulting in the area of application development to the EU funds?

Among the users of private service only 8 companies purchased the information and consulting without commissioning the development of application by the consulting company (N = 109). The interviews with companies and consultants proved that private service is predominantly bundled with writing the applications and the information and consulting is limited to sales of printed or CD instructional materials. Private consultants explain that fact by availability of the information in brochures and in the Internet which prevents a possibility of establishing adequate prices. Moreover, they prefer focusing on higher value–adding and higher price activity than lower–value adding and lower price activity, which additionally requires tailoring to specific small business needs and prevents scale economies. The latter is addressed by selling common resource in the form of electronic or printed materials. They, however, suggest the displacement effect, pointing to the existence of the free services crowding them out of the market.

Publicly funded services are never directed at writing the applications. During the survey, only 15 companies declared preparing the business plans on their own.

The overall enables conclusion that market provision of exclusive information and consulting (without writing applications) is inadequate. Thus, the publicly funded services are unique and they are not substitutes to the market services currently. Further research should reveal whether this is a displacement effect.

Is there an inadequate demand for the information and consulting in developing applications to the EU funds?

55% of public service beneficiaries declared they would be ready to pay for such a service versus 45% of those unwilling (N = 115). It is a considerable fraction ready to pay, however the difference between fractions is not statistically significant. During the time of the research there were 546 companies that utilized public services out of 1038 applicants. It should be added that not all service users submitted the applications (53% submissions in the sample, N = 75). Thus we can assume that at least more than a half of applicants utilized private service. This combined with the finding that independent work on applications, without any external support was rarely exercised, proves a considerable demand for the services. This demand is largely satisfied by the private consultants developing applications based on the commissions from businesses. There are, however, important differences in the characteristics of the users of both type of services (table 1). Public service users are of smaller size, with more companies from service than manufacturing industries and larger fraction of knowledge–based service sectors. Public service beneficiaries come normally from the periphery of the region. They also differ by legal forms of which sole proprietorship business prevails. Users of public service represent a larger fraction of entrepreneurs at younger age (26–35 years). there is an opposite situation relative to an older age fraction (>55 years) for which the representation

of private entrepreneurs is larger. The public service beneficiaries rely on the Internet, the media and public institutions of environment in searching the knowledge on the EU funding while the users of market services obtain the information through networking (other entrepreneurs and active promotion from the service provider).
The response about the inadequate demand as market failure is negative. However we see that the demand for public services is formed by the specific group of companies that may represent a niche requiring the public support.

Variable and its description	Public service (frequencies)	Private service (frequencies)	Chi–square	Df	P
Size: micro (0–9 employees, small (10–49), medium (50–249)	Micro 60 Small 27 Medium 13	Micro 17 Small 47 Medium 36	36,26283	2	0,0000
Sector: manufact: all type of manufacturing, intel serv: service based on intellectual property (medical, business services, etc.), other serv (other traditional services)	Manufact 37 Intel serv 37 Other serv 26	Manufact 62 Intel serv 21 Other serv 17	11,46543	2	0,00324
Location: capital (capital of the region, medium (medium–sized towns), other (small towns and other locations)	Capital 24 Medium 37 Other 39	Capital 47 Medium 29 Other 24	10,12374	2	0,00634
Age of entrepreneur (in years)	26–35 21 35–45 41 46–55 28 >55 10	26–35 7 35–45 41 46–55 31 >55 21	10,99952	3	0,01173
Legal form sole (sole proprietorship), limited (limited partnership), other (other forms of partnership)	Sole 59 Limited 20 Other 21	Sole 18 Limited 43 Other 39	31,84545	2	0,0000
Source of information: Internet, other media (press, radio, TV), environ (institutions of environment), active (active promotion – telephone, e–mail from the service provider), entrepr (orther entrepreneurs)	Internet 11 Media 44 Active 7 Environ 23 Entrepr 15	Internet 6 Media 10 Active 32 Environ 7 Entrepr 45	53,40059	4	0,0000

Table 1. Chi–square test: Characteristics of public (N = 71) vs. private service users (N = 109)

Source: author's own research

Is there an evidence of information asymmetry (inefficiencies and discrepancies in the information exchange) in this specific area?

The information on the sources of funding and requirements from applicants is widespread. Access to the information is not seen as a problem by the entrepreneurs (only 3% points to the lack of information as a barrier in acquiring EU funds, N=190). The problem consists in the information overload, quality and selection of the information relevant for the needs of a specific entrepreneur. Respondents pointed to complexity of the application (44%) and unclear criteria of selection of applications (35%), which proves

the need for direct consultations in this area (N = 190). Moreover the interviews revealed low level of understanding of financial analysis and of business idea evaluation. The reasons for this low level of understanding of the application requirements are technical language of the information, incorrect information, delayed information and inconsistency between the information in different information channels such as printed brochures and the web page of the institution managing funds. Information asymmetry was identified not only between entrepreneurs and consultants but also between consultants and central managing institution (10 out of 18 consultants interviewed admitted they did not have access to the comprehensive information).

We identify all the types of information asymmetry: 1) unequal distribution of knowledge between the entrepreneur and consultant, 2) inaccurate information held by both entrepreneur and the consultant, 3) incorrect information which is widespread.

Information asymmetry is the strongest argument in support of the market failure in this area, however the market failure has its foundation in the government failure, i.e. inadequate institutional set–up for managing support programs.

Is there an evidence of positive externalities from the public information diffusion?

The internet and other media were the primary source of knowledge on the information service for the public service users (61% of responses relative to 10% for private users, $p<0,05$, N = 190). The second source, however modestly represented, were institutions of business environment (13% of responses vs. 7% for private users, $p<0,05$; N = 190). For private users the main source of the information about the service were other entrepreneurs (45% vs. 16% for public service beneficiaries, $p<0,05$, N = 190). This indicates positive externalities and the information on the opportunities for funding spreading rather from private than public service. The limited impact of the institutions of environment indicates lower effectiveness of those institutions relative to private consultancies. Externalities from the publicly funded services were not proved.

The responses to the research questions enabled verification of the main research hypothesis formulated earlier as:

In the area of the information and consulting on the development of applications for funds there are market failures that justify public intervention.

Two types of market failure were identified, namely underprovision of pure information and consulting, without development of application, and strong information asymmetry. Complex institutional set up in applying for funds is a main reason for the asymmetry. Thus we can say that market failure in this regard has its origins in government failure. Two other types of market inefficiencies, that is externalities and inadequate demand, were not proved by the research findings.

Conclusions and recommendations

The analysis of the relevance criterion, i.e. justification of the public intervention in the area of information and consulting based on market failure, provided arguments in support of the public funding. There are arguments of inadequate provision of pure informa-

tion and consulting and a strong information asymmetry. The information asymmetry argument, however, is grounded in the government failure to assure transparent and efficient institutional set up for managing distribution of EU funds. The inadequate demand and externality arguments were not proved.

The research identified differences in the scope of the both type of service instead of seeing them as substitutes/alternatives. Public providers deliver lower–value adding and free of payment service. Private providers focus on higher–value adding and higher price services. This combines with differing characteristics of target groups for the private and public consultancies. The overall supports the assumption by R. J. Bennett (2008) in the UK, that public service responds to a niche demand. It can be assumed that in the Polish conditions this niche is large enough to justify public support (smaller size companies – micro and small businesses, service sector). However, there is a need to monitor the supply of such services as private provision may develop and reduce the market failure incidence (Bennett 2008).

Differing characteristics of public and private services provides for the division of roles between those entities, which finding is of relevance for policy–makers, consultants and entrepreneurs. Further research should consider whether this division of roles is not due to the displacement effect, i.e. crowding private consultants out of the market in the area of exclusive information and consulting services.

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