# The Impacts of EU Support Programs on SMEs: A Literature Review

*Mariapia D'Anghela*
*University of Urbino, Italy*
*Federica Murmura*
*University of Urbino, Italy*

## Abstract

The role of Small and Medium-sized enterprises (SMEs) as a source of employment opportunities and innovation in our local and regional territories is well known. However, the SMEs must face different challenges due to the dynamic context in which they are operating and the global competition. In this direction public policies are trying to support the SMEs competitiveness and innovation, through different instruments and programmes managed at national and regional level or thematic funding opportunities. In this context, several studies focused on monitoring the impacts of public support programs on turnover, investments and innovation activities in SMEs have been conducted, showing as there are general positive effects for the SMEs participating in these programs. The contribution of this paper is to identify the existing literature on the impacts of the financial support programs on SMEs, analysing the contribution of practitioners and academics and empirical researches. Literature available from 2002 to the present have been analysed using Web of Science and Scopus and using the databases available on European Commission website. Preliminary findings have shown as there is the need of a deeper investigation about the participation in EU programmes and the main contributions derive from the researchers conducted by practitioners.

**Keywords:** SMEs, EU funding, R&D, European projects
**JEL classification:** M10

**Paper type:** Research article
**Received:** May 19, 2020
**Accepted:** Jun 5, 2020

# Introduction

Small-to-medium-sized businesses (SMEs) represent 99% of all the business in the EU (European Commission, 2020). Their central role in the economies as a source of employment opportunities and innovation activities in our local and regional territories is well known (Gilmore et al., 2013; Labudová & Jánošová, 2019) and there is a common idea that the SMEs constitute the most active part of the territories in terms of new products, services or/and processes generation (Čučković & Vučković, 2018). The innovation activities carried out by SMEs are at the basis of technological development and growth of the territories (Czarnitzki & Delanote, 2015) and of the "entrepreneurial spirit" of a country (Labudová & Jánošová, 2019; Staniewski et al., 2015).

At the same time, it is well known how SMEs have to face different challenges due to the context in which they operate that is characterized by an increasingly dynamic market and the competition in a global scale, aggravated by some firm-specific characteristics that made the SMEs most vulnerable to the competition in the complex market that needs high level of technologies and competences (Clifton et al., 2015).

Supporting SMEs' competitiveness becomes one of the key elements of EU policies (European Commission, 2020): the objective is to support the creation of a business-friendly environment for SMEs to sustenance their growth, their innovation activities and consequently develop their potential within the global context (Labudová & Jánošová, 2019). Public policies at national, regional and local levels are critical to provide the right environment (Wilson, 2006), to support the SMEs development in term of financial and non-financial activities (Appiah et al., 2019) through the creation of actions in different areas of intervention (Wilson, 2006). The central role of the institution is not just of providing the necessary financial resources; their role is important for the creation of a context in which the SMEs can easily have access to information, can become part of more open networks and share the best practices (Wilson, 2006) improving the business surrounding and internal abilities of the companies (Pietrasieński & Ślusarczyk, 2015). The role of government to support the SME's development in terms of financial and non-financial activities results to be relevant and important (Appiah, 2019).

In this context, the European funding available at regional and European level oriented to improve the competitiveness of SMEs in line with the objectives of European priorities are the first resources available to SMEs to increase the innovation capability and competitiveness. The instruments developed by the EC to enhancing the competitiveness of SMEs through better access to financial support are different within the EU program frameworks (Kiełek-Więcławska, 2016). Commission developed a supporting scheme at national and regional level to sustain their activities in different areas of intervention (Adina-Simona, 2013). Through the use of EU funds, the SMEs can have access to funding to invest in new products, services or infrastructure (Visković & Udovičić, 2016) or receive support through different tools for the assistance of non-financial activities (Adina-Simona, 2013; Zaneta & Joshua, 2015). The support system is a complex scheme characterized by a very huge availability of interventions. The most important example of instruments directed funded by EU are COSME, SME Instrument, HORIZON 2020 that provide direct support for the development of SMEs' activities (Visković & Udovičić, 2016). Instead, the EU regional policy is financed by three main funds based on the principles of co-financing and joint management that are: the European Regional Development Fund (ERDF), the European Social Fund (ESF), Structural Funds and the Cohesion

Fund. In this sense supporting SMEs is considered as instrument to develop the regional economy in an indirect way (Lewandowska et al., 2015).

These projects represent for SMEs real opportunities to face the new level of competition in a global scale that could benefit from: the access to investment financing; the entrance to global markets and international value chains; new growth opportunities; the investment in human capital and organizational activities (European Commission, 2014). Besides, public funding (a national or EU level) has a very important role in supporting ICT technologies, enabling innovation favouring all society (Čučković & Vučković, 2018), and is considered a very important way to stimulate interaction among different organizations that would not happen naturally (Caloffi et al., 2015) and to intensify the links between research centres and universities.

In this direction, several studies have been conducted to better understand the dynamic of access of SMEs to public funding. Some researches have focused on the main barriers and the awareness related to the opportunities of this kind of program: Visković and Udovičić (2016) stated that SMEs are almost aware of the opportunities belonging from public funding, but at the same time represents for them a challenge because these kind of projects are complex by nature: most of the projects involve different actors -institutional and private- who must converge towards a common objective (Greco, 2015) and this kind of collaboration is not easy to realize efficiently (Caloffi et al., 2015). Furthermore, the projects are often multidisciplinary, the activities are well structured (Ciarmatori et al., 2018), and require a complicated procedure and very demanding documentation (Visković & Udovičić, 2016). The main access barriers are linked to the difficulty of finding strategic and technical information on the EU and funding programs; the lack of knowledge of the development of a project; an excessive bureaucracy; task-oriented planning and lack of information about the project documents necessary in each step of its implementation (Grazi, 2012). This is related to the scarce participation of SMEs to this kind of project and the necessity to develop an easy access program for SMEs (Gilmore et al., 2013).

On the other hand, there are several studies conducted to monitor the impacts of the public support program for SMEs (regional and at EU level) that have shown a general positive effect of participating in EU funding (Čučković & Vučković, 2018). In particular, the evidence of different researches shows that there are different direct and indirect positive effects on innovation activities, output, and economic performance of SMEs improving competitive position in the market (Čučković & Vučković, 2018; Lewandowska et al., 2015). Other studies have pointed out that EU funds have an important role in allowing the participants to this kind of project to acquire knowledge that can stimulate further investment (Lewandowska et al., 2015) while other researches have focused their attention on how this fund improves the relationship between different actors involved (Caloffi et al., 2015). Some papers have indeed underlined that there are cases in which in practice the SMEs do not achieve the economic results that can favour their increase competition in the long run (Vojtovič, 2016) because different internal and external factors can influence the efficient use of these sources (Čučković & Vučković, 2018)

In this context, the contribution of this paper is to identify the existing literature on the impacts of the financial support programs on SMEs that to date is missing in the literature. In particular, the work tries to answer the following research questions:

RQ1: Which are the main approaches in the literature about the study of the participation of SMEs in public programs?

RQ2. Which are the main impacts of participation in public funding identified by the literature?

RQ3. Which future research areas can be identified to contribute to the expansion of this topic?

# Methodology

To answer the previous research questions and identify the state of knowledge and the areas in which more research is needed (Snyder, 2019), a structured literature review was performed. The literature review was conducted using the databases Scopus and Web of Science. Data collection consisted of searching the keywords "**SMEs AND EU funding**", "**SMEs AND European Programme**" and "**SMEs AND regional funding**" with the limitation of the period of publication (2002 to 2020) and the subject areas; the articles included in the Business, Management, Accounting, Social Sciences, Economics and Econometrics, and Finance and Decision Science for the Scopus Database were included in the sample; for Web of Science database, the categories selected were Business, Management Economics, and Regional Urban planning.

The stages in the literature selection process were carried out as follow:

- Data collection searching the keywords in the two databases (including the title and the abstract);
- Exclusion of all the papers according to the previous criteria's (period of publication and subjects' areas);
- Unification of the databases and elimination of the works that appear twice;
- Evaluation of all the abstracts to eliminate the ones that were not in line with the purpose of the literature review.

The results of the research are shown in Table 1.

*Table 1.*
Literature search on the main search engines

| Keywords | Databases | |
|---|---|---|
| | Web of Science | Scopus |
| **Results by keywords** | 347 | 212 |
| **Results by the period of publication and subject's area** | 204 | 131 |
| | | **TOT. 335** |
| **Unification of the databases and elimination of the duplication** | | **TOT. 238** |
| **The abstract is appropriate to answer the research questions** | | **33 Articles** |

*Source:* Our elaboration

As already stated, 33 articles considered coherent with the RQs were selected after reading the abstracts and in some cases the full text of the work (the papers selected contained at least the words SMEs and EU funding/EU structural funds/ EU projects in their abstract or keywords). The sample includes journal articles, reviews, and proceedings paper to catch the emerging trends and the main research approaches available in this field. The sample includes also the papers aimed at evaluating the perception of SMEs about European or regional funding (in terms of opportunities and barriers).

The other works have not been included in the literature reviews because not aligned with the purpose of the research.

In particular, are not included in our sample: i) the articles not oriented at evaluating the impacts of European or regional funding on SMEs; ii) the works intended at investigating the impacts on EU funding on regional or national development (and not on the SMEs); iii) the researches that propose methodologies, methods, and tools in this topic; and iv) the papers that describe the results of a particular project. Also, 2 articles were considered coherent with our research questions, but have been excluded because the literature was not available in English.

As the last step of the literature review, the main findings have been synthesized and the results will be shown in the next section together with the discussion of the main impacts highlighted by the researches.

# Results

This section provides the analysis of the sample concerning the RQ1 "Which are the main approaches in the literature about the study of the participation of SMEs in public programs?" The analysis of our selected sample is aimed at identifying some insights about the main approaches and in particular: 1) the methodology; 2) the kind of programs they are investigating the effects; 3) how the impacts are evaluated.

Regarding the methodology, we distinguish the papers according to 4 main categories: quantitative (survey, questionnaire, and other empirical methods), qualitative (case studies, interviews), review of the literature, and mixed methods.

We tried to identify a clear division of the origin of the funds, as in the different contributions available in the literature is not very clear the distinction between the origin of the programs, and consequently, it is not possible to distinguish the effects of the different role of public agencies and to compare the studies (Bedu & Vanderstocken, 2019). We divided the works according to two main categories i.e. Regional funding (Structural funds) and EU direct funding (that includes the programs direct financed by EU).

With regard to the approaches, we distinguish the papers in two main categories: the first category includes the articles targeted at evaluating the awareness and the perceptions in terms of opportunities and barriers for the SMEs, and the second one includes the researches aimed at evaluating the ex-post effects of the participation of SMEs to this program. Regarding this last point, we identify the researches with the scope to analyse different aspects at the same time regarding competitiveness while some articles are analysing just particular aspects such as innovation, cooperation, impacts on business skills, and business strategy.

Table 2 includes the results of the analysis of the 33 articles of the sample.

*Table 2.*
Profiles of the selected works

| **1. Methodology** | | **3. Approaches** | |
|---|---|---|---|
| 1A Quantitative | 22 | 3A. Evaluation of the impacts | 24 |
| 1B Qualitative | 6 | 3B. SMEs' perceptions | 9 |
| 1C Literature review | 4 | | |
| 1D Mixed Methods | 1 | | |
| **TOT** | **33** | **TOT** | **33** |
| **2. Funding Typology** | | **4. Year of publication** | |
| 2A Regional Funding | 14 | 4A.2002-2007 | 3 |

| | | | |
|---|---|---|---|
| 2B Direct Funding | 19 | 4B. 2008-2013 | 5 |
| **TOT** | **33** | 4C.2014-2020 | 25 |
| | | **TOT** | **33** |

Source: our elaboration

The analysis of the selected literature shows that there are many studies intended at evaluating the effectiveness of the use of public schemes by SMEs and the impacts on different aspects. Not all the 33 papers have looked at the impacts, but there were some articles aimed to explore the participation of SMEs to public funding in terms of awareness, perceptions, and in terms of barriers and opportunities. We will look at these works after the analysis of the impacts.

The results of the analysis show that the use of public funding in SMEs have generally positive effects on SMEs (Dvouletý et al., 2018; Čučković & Vučković, 2018; Lewandowska et al., 2015; Radicic & Pugh, 2017; Vojtovič, 2016; Assarlind et al., 2013, Colombo et al., 2016;) and particular attention has been given to the effects on R&D. Based on the analysis of the contributions, we can notice that the researches have focused their attention of the effects on economic aspects and tangible aspects of the participation, while fewer studies have focused on intangible benefits such as the effects on business strategy (Aykan et al., 2013), business skills (Nilsson et al., 2005) and cooperation (Caloffi et al., 2015; Radicic et al., 2020).

According to Boratynska and Andrusiewicz (2018) there are three main areas in which it is possible to check the effects of the participation in public funding: product and technical areas, economic area, and financial one (Boratynska & Andrusiewicz, 2018). The main evidence, have shown as the participants to EU regional funding schemes have obtained different positive effects (Lewandowska et al., 2015); in particular, the applicants have had positive impacts on competitiveness in terms of increased sales and consequently profits on production capacity thanks to the modernization of fixed asset and the general financing of investments (Lewandowska et al., 2015). This last aspect is underlined by other researches: the participation to these programs stimulates positive change on tangible assets thanks to the possibility to invest in equipment's, machinery and new plants (Dvouletý et al., 2018; Radicic et al., 2020) and allowing to extend the product portfolios of the companies, or to improve the existing one (Radicic et al., 2020).

Positive effects were also registered in terms of the improvement of products and technology (Lewandowska et al., 2015). Furthermore, an important point is that the access to EU fund can provide long-run benefits, through the upgrade of quality system or/and processes (Lewandowska et al., 2015). The use of EU structural fund also has educational aspects (Faber et al., 2016; Lewandowska et al., 2015): participating to such projects allows the beneficiaries to become more comfortable in the management of the projects, and they can use the skills and experiences gained for future projects and the management of more complex ones (Faber et al., 2016; Lewandowska et al., 2015). Other economic benefits that emerged from the researches are turnover increase (Čučković & Vučković, 2018; Nilsson et al., 2007) and cost-saving (Nilsson et al., 2007; Stewardson & Coleman, 2003).

Researches also show that the projects have positive effects on job creation, as the SMEs increase the number of employees (Bedu & Vanderstocken, 2019; Boratynska & Andrusiewicz, 2018; Mikołajczak & Pawlak, 2017; Lewandowska et al., 2015), while a negative correlation was found with the increase of the average wage (Bedu & Vanderstocken, 2019).

Special attention is given to the SMEs' participation in projects targeted at improving the R&D activities (Golejewska & Gajda, 2015) and enhancing firms'

innovativeness (Florio et al., 2018; Radicic & Pugh, 2015). This aspect was especially analysed by the papers that treated the effects of EU direct funding. The different researches highlighted as the SMEs that have benefited by these projects have increased their private R&D spending (Bedu & Vanderstocken, 2019), improved their technology and products development (Lewandowska et al., 2015), increased the number of innovations (Čučković & Vučković, 2018; Czarnitzki & Delanote, 2015; Venckuviene & Snieska, 2014) and expanded the probability of patent application. In general, as stated by Radicic et al. (2020) the SMEs that participate both to national and European projects have many possibilities to boost their innovation activities (Radicic et al., 2020).

An important aspect of the involvement to such programs is that the SMEs can take advantages from the partnerships and the collaboration with other partner, not just during the term of the projects, but it stimulates long-run relationships (Caloffi et al., 2015; Radicic et al., 2020). Nepelski and Piroli (2018) show as the typology of partnership that the SMEs create during the involvement in such projects can have an impact on the innovation potential of SMEs (Nepelski & Piroli, 2018). Researches highlighted that participation of SMEs increases their propensity to enhance their relationships with a variety of organizations, such as universities, and other agencies specialized in innovation activities especially the ones located in the same regional territory (Caloffi et al., 2015) and with other "knowledge providers" such as consultant and research centres (Radicic et al., 2020). These actors have a very important role in supporting the SMEs (Aykan et al., 2013; Medve-Bálint & Šćepanović, 2019) in different activities (technology, training or consultancy supports) and their relationships may influence the market strategy (Aykan et al., 2013).

Despite the general positive evidence shown by the most of the researches, some articles have highlighted that the use of public funding is not always efficient: in particular, Vojtovič (2016) shows how it is possible that the SMEs do not use efficiently the financial resources and consequently they do not achieve the economic results expected by the projects (Vojtovič, 2016) due to different difficulties that have to face related to the lack of capital, technical or human resources, or simply a lack of strategy (Vojtovič, 2016) in managing projects. In this direction, the contribution of the literature provides different researches that have analysed which are the main difficulties in implementing this kind of project, and that are included in this work.

Different studies have focused on which are the main difficulties that SMEs must face in accessing UE funded projects. In general, it can be said that the SMEs are aware of the opportunities, above all the possibilities to benefice from cost and knowledge sharing (Faber et al., 2016) but are not friendly with their use (Visković & Udovičić, 2016). This is especially true for the EU program for the competitiveness such as COSME and HORIZON (Visković & Udovičić, 2016). The main obstacles highlighted are linked to procedures that are perceived quite difficult and complicated (Gilmore et al., 2013; Hunya et al., 2011; Visković & Udovičić, 2016): the SMEs involved in the different researches, indicated that the first difficulties they meet are during the application phase (Visković & Udovičić, 2016). The preparation of all the documents to submit the project is perceived by SMEs as very challenging due to the extremely demanding requirements for the preparation of the projects (Hunya et al., 2011): very often they do not know project management practices (Gilmore et al., 2013) and in general are not familiar with formalized procedures (Medve-Bálintand & Šćepanović, 2019); they are not able to draft the application (Hunya et al., 2011) and most of the time they cannot afford a professional help (Gilmore et al., 2013). This formalized procedure very often represents a time-consuming activity for

SMEs (Hunya et al., 2011) and includes a high involvement of expert staff (Faber et al., 2016).

The other main difficulties emerged are related to financial aspects: SMEs are not able to find the additional resources to co-finance their projects (Hunya et al., 2011) or to find and/or manage the relationship with different kinds of partners (Caloffi et al., 2015). This applies especially for the EU direct funding programmes, which are perceived as more complex. The researchers have highlighted as very often the SMEs are not able to identify the best source for their projects and do not consider the general objective in line with their ideas (Hunya et al., 2011). This of course influences the participation of the SMEs to this kind of projects explaining how they need to be encouraged to participate (Gilmore et al., 2013) and explains the high number of the rejection in the evaluation phase of application (Hunya et al., 2011) and the general less use of EU fund (Visković & Udovičić, 2016).

A very crucial aspect highlighted by the researches is that an important role is played by the domestic Institution and other agents that can support their development (Medve-Bálintand & Šćepanović, 2019; Miller, 2000). These organizations, due to the proximity with the SMEs located in the same region must have a proactive role in supporting SMEs (Visković & Udovičić, 2016), creating better condition and tools for their participation (Labudová & Jánošová, 2019) and furnishing more appropriate support services for SMEs (Hunya et al., 2011).

## Discussion

To investigate and measure the effectiveness of public funding, several studies have been selected. Analysing the papers, we can identify some of the key features of how the literature is approaching the theme of public funding (RQ1). Most of the articles about this topic have been written in the last years (from 2014 to date) and they have applied quantitative methods to investigate the topic (surveys). Several econometric models have been proposed, and in less measure, some qualitative researches have been conducted (several case studies on SMEs participating in public funding have been performed). With regards to the typology of funding, the literature available shows as the researches are both oriented to the evaluation of the impacts of Structural funds and EU directed funding, but in the last case, the works focused mostly on the impacts of R&D programs of innovation performance of SMEs.

With regards to the impacts (RQ2), as have been evidenced in the previous section, the effects have been analysed considering three main areas: products and technical improvements, through a better understanding of innovation dynamics in SMEs; economic effects (in terms of profitability, employment, and competitiveness); and networking effects (in terms of improvement of relationships with partners and local actors).

From the analysis of the papers, some aspects of the topics that need to be researched properly are emerged (RQ3). More studies are needed to understand why SMEs still fail to reach the economic results from the use of Structural funds (Vojtovič, 2016). It could be interesting to focus on the internal aspects and conditions of SMEs (Kock et al., 2008) and investigate the role of entrepreneurs (Bedu & Vanderstocken, 2019). Also, future researches could be oriented to understand in what extend the local environment is important for SMEs and how they can support and influence SME's participation in such programs. Another interesting point can be to focus the analysis of the impacts on different sectors, linked to the fact that most of EU Structural funds are oriented to support SME's particular sectors that are considered relevant for the development and growth of specific regions.

# Conclusion

In this paper, a literature review on the impacts of the SMEs' participation in EU direct and indirect funding opportunities have been conducted. Despite the analysis of the topic has been carried on focusing on the analysing of the contributions provided by two databases, the study delivers an input on which are the main approaches identified in the literature about the SMEs participation in EU funded projects, the main benefits and recognises some of the research areas that need deeper research. The investigation of these topics remain challenging for different reasons: first of all one factor is linked to the lack of availability of economic indicators and data about SMEs (Vojtovič, 2016); furthermore, some difficulties are related to the fact that the effectiveness of the use of these resources depends on internal factors (Čučković & Vučković, 2018) and from the influence of external organizations (researches centres, universities, consultancy agencies) which role is central in providing the right support to SMEs. As shown by the results, this topic has gained attention in the last years both for the benefits that the SMEs can obtain using such funding and from a policy's point of view. This is explained by the fact that these kinds of programs are one of the most important sources for SMEs to increase the innovation capability and competitiveness and indirectly, they may influence the regional development and growth, in line with the EU objectives.

# References


1. Appiah, K., Osei, C., Selassie, H., Osabutey, E. (2019), "The role of government and the international competitiveness of SMEs: evidence from Ghanaian non-traditional exports", Critical Perspectives on International Business, Vol. 15, No. 4, pp. 296-322.
2. Assarlind, M., Eriksson, H., Gremyr, I., Jakobsson, T. (2013), "Adopting new ways of working in small and medium-sized enterprises: findings from interventions in 12 European companies", Total Quality Management & Business Excellence, Vol. 24 No.7-8, pp. 945-958.
3. Aykan, E., Aksoylu, S., Sönmez, E. (2013), "Effects of support programs on corporate strategies of small and medium-sized enterprises", Procedia-Social and Behavioral Sciences, Vol. 99, pp. 938-946.
4. Bedu, N., Vanderstocken, A. (2019), "Do regional R&D subsidies foster innovative SMEs' development: evidence from Aquitaine SMEs", European Planning Studies, pp. 1-24.
5. Boratynska, K., Andrusiewicz, E. (2018), "Selected European Union operational funds'impact on newly emerging SMEs in the Lubelskie Voivodeship", 19th International Scientific Conference Economic Science For Rural Development, vol. 48, 9-11 May, Latvia University of Life Sciences and Technologies, Jelgava, Latvia, pp. 44-51.
6. Caloffi, A., Rossi, F., Russo, M. (2015), "What makes SMEs more likely to collaborate? Analysing the role of regional innovation policy", European Planning Studies, Vol. 23, No. 7, pp. 1245-1264.
7. Ciarmatori, F., Bocconcelli, R., Pagano, A. (2018), "The role of European R&D projects for SMEs' resource development: an IMP perspective.", IMP Journal, Vol. 12, No. 2, pp. 346-367.
8. Clifton, N., Huggins, R., Morgan, B., Thompson, P. (2015), "An appropriate tool for entrepreneurial learning in SMEs? The case of the 20Twenty Leadership Programme". Local Economy, Vol. 30 No. 5, pp. 534-556.
9. Colombo, M. G., D'Adda, D., Pirelli, L. H. (2016), "The participation of new technology-based firms in EU-funded R&D partnerships: The role of venture capital", Research Policy, Vol. 45 No.2, pp. 361-375.
10. Čučković, N., Vučković, V. (2018), "EU R&D funding as a way of incentivizing innovation of SMEs: a review of impacts", Croatian Economic Survey, Vol. 20, No. 2, pp. 97-127.

11. Czarnitzki, D., Delanote, J. (2015), "R&D policies for young SMEs: input and output effects", Small Business Economics, Vol. 45, No. 3, pp. 465-485.
12. Dvouletý, O., Čadil, J., Mirošník, K. (2018), "Do firms supported by credit guarantee schemes report better financial results 2 years after the end of intervention?", The B.E. Journal of Economic Analysis & Policy, Vol.19, No.1.
13. European Commission. (2014), "How to support SMEs policy from Structural Fund", available at https://op.europa.eu/en/publication-detail/-/publication/0a5e4b2b-2066-4b21-b06e-eec610c4532b/ (15 March 2020)
14. European commission. (2020), "What is an SME", available at: https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en (20 March 2020)
15. Faber, J., van Dijk, J., van Rijnsoever, F. (2016), "Incentives and barriers for R&D-based SMEs to participate in European research programs: an empirical assessment for the Netherlands", Science and Public Policy, Vol. 43, No. 3, pp. 414-428.
16. Florio, M., Parteka, A., Sirtori, E. (2018), "The mechanisms of technological innovation in SMEs: a Bayesian Network Analysis of EU regional policy impact on Polish firms", Technological and Economic Development of Economy, Vol. 24 No. 5, pp. 2131-2160.
17. Gilmore, A., Galbraith, B., Mulvenna, M. (2013), "Perceived barriers to participation in R&D programmes for SMEs within the European Union", Technology Analysis & Strategic Management, Vol. 25, No. 3, pp. 329-339.
18. Golejewska, A., Gajda, D. (2015), "How Polish firms use the EU funds for innovative projects? Final evaluation of Pomerania region in Poland", Innovation, Finance, and the Economy, Springer, pp. 1-13.
19. Grazi, L. (2012), "Europrogettazione 2014-2020: Le nuove opportunità offerte dai Fondi comunitari" (Europrogettazione 2014-2020: The new opportunity offered by the Community Funds), available at: http://www.eurostaff.it/fast/loknet/contenitorefiles/40863436251152304.pdf (20 March 2020)
20. Greco, G. (2015),"La gestione dei progetti europei: il Ciclo del Progetto" (The management of European projects: the cycle of the project), available at: https://www.ecnews.it/la-gestione-dei-progetti-europei-il-ciclo-del-progetto/ (10 April 2020)
21. Hunya, G., Dumitriu, I., Horváth, R., Klebeev, I., Ruhland, S. (2011), "An assessment of the access by Romanian SMEs to structural funds" wiiw Research Report. No. 368, available at: https://www.researchgate.net/publication/227385366_An_Assessment_of_the_Access_by_Romanian_SMEs_to_Structural_Funds (accessed 10 April 2020)
22. Kiełek-Więcławska, E. (2016), "Support for the SMEs sector in the framework of the smart growth operational programme for the years 2014-2020", in Okręglicka, M., Gorzeń-Mitka, I., Anna Lemańska-Majdzik, A., Sipa, M., Skibiński, A. (Eds.), 1st International Conference Contemporary Issues in Theory and Practice of Management CITPM 2016, 21-22 April, Czestochowa University of Technology Faculty of Management, Poland, pp. 176-182.
23. Kock, H., Gill, A., Ellström, P. E. (2008), "Why do small enterprises participate in a programme for competence development?", Journal of Workplace Learning, Vol. 20 No. 3, pp. 181-194.
24. Labudová, L., Jánošová, D. (2019), "Analysis of support and identification of barriers to SMEs in Slovakia and in the Czech Republic", Serbian Journal of Management, Vol. 14, No. 2, pp. 437-453.
25. Lewandowska, A., Stopa, M., Humenny, G. (2015)," The European Union structural funds and regional development. The perspective of small and medium enterprises in Eastern Poland", European Planning Studies, Vol. 23, No. 4, pp. 785-797.
26. Medve-Bálint, G., Šćepanović, V. (2019), "EU funds, state capacity and the development of transnational industrial policies in Europe's Eastern periphery", Review of International Political Economy, pp. 1-20.

27. Mikołajczak, P., Pawlak, J. (2017), "Factors affecting outcomes of EU-supported investments in innovation among SMEs in the Greater Poland (Wielkopolska) region, Poland", Journal of Research in Marketing and Entrepreneurship, Vol. 19, No. 2, pp.140-160.
28. Miller, D. (2000), "Paving the way for EU accession: regional development and support for SMEs in eastern Poland", Regional Studies, Vol. 34, No. 6, pp. 586-592.
29. Nepelski, D., Piroli, G. (2018), "Organizational diversity and innovation potential of EU-funded research projects", The Journal of Technology Transfer, Vol. 43, No .3, pp. 615-639.
30. Nilsson, P. Å., Petersen, T., Wanhill, S. (2005), "Public support for tourism SMEs in peripheral areas: the arjeplog project, northern Sweden", The Service Industries Journal, Vol. 25, No. 4, pp. 579-599.
31. Pietrasieński, P., Ślusarczyk, B. (2015), "Internationalization of small and medium enterprises: empirical research review on barriers to entry into foreign markets", Polish Journal of Management Studies, Vol. 11, No. 1, pp. 113-123.
32. Adina-Simona, P. (2013), "Performance indicators for SMEs accessing EU funds", Constanta Maritime University Annals, Vol. 19, pp. 319-322.
33. Radicic, D., Pugh, G. (2015), "Input and output additionality of R&D programmes in european SMEs", In Dameri, R. P., Beltrametti, L. (Eds.), 10th European Conference on Innovation and Entrepreneurship, 17-18 September, Academic Conferences International Limited, Genoa, Italy, p. 567-575.
34. Radicic, D., Pugh, G. (2017), "R&D programmes, policy mix, and the 'European paradox': Evidence from European SMEs", Science and Public Policy, Vol. 44 No.4, pp. 497-512.
35. Radicic, D., Pugh, G., Douglas, D. (2020), "Promoting cooperation in innovation ecosystems: evidence from European traditional manufacturing SMEs", Small Business Economics, No. 54, No. 1, pp. 257-283.
36. Snyder, H. (2019), "Literature review as a research methodology: An overview and guidelines", Journal of Business Research, Vol. 104, pp. 333-339.
37. Staniewski, M. W., Szopiński, T., Awruk, K. (2016), "Setting up a business and funding sources", Journal of Business Research, Vol. 69 No.6, pp. 2108-2112.
38. Stewardson, D., Coleman, S. (2003), "Success and failure in helping SMEs: a three-year observational study", Industry and Higher Education, Vol. 17, No. 2, pp. 125-130.
39. Venckuviene, V., Snieska, V. (2014), "Government sponsored venture capital funds and their relation to innovations in Lithuanian SMEs", Economics and Management, Vol. 19, No.1, pp. 54-62.
40. Visković, J., Udovičić, M. (2016), "Awareness of SMEs on the EU funds financing possibilities: the case of Split-Dalmatia county", in Karasavvoglou, A., Goic, S., Polychronidou, P. (Eds.), 8th International Conference The Economies of Balkan and Eastern Europe Countries in the Changed World, 6–8 May, KnE Social Sciences, Split, Croatia, pp. 319-332.
41. Vojtovič, S. (2016), "The impact of the structural funds on competitiveness of small and medium-sized enterprises", Journal of Competitiveness, Vol. 8, No. 4, pp. 30-45.
42. Wilson, K. (2006), "Encouraging the internationalisation of SMEs", OECD papers, Vol. 6, No. 12, pp. 43-66.
43. Zaneta, S., Joshua, F. (2015), "The effect of European Union structural fund on small and medium enterprises", in Simberova, I., Kocmanova, A. (Eds.), 15th International Conference of Perspectives of Business and Entrepreneurship Development at Brno University of Technology, May 28-29, Brno, Czech Republic, pp. 101-109.

## About the authors

Mariapia D'Anghela has a master's degree in "Marketing and Business Communication" (Summa cum Laude) and she is currently Ph.D. student in Global Studies. Economy, Society and Law at the University of Urbino. Her Ph.D. programme is and industrial Ph.D. carried out in collaboration with an Italian Laboratory for Quality tests for the wood-furniture sector, accredited by the National Accreditation Body (Accredia). She is involved in various researches in the Circular Economy field and in research activities in some EU funded projects. Author can be contacted at **m.danghela@campus.uniurb.it.**

Federica Murmura is Associate Professor in Total Quality Management at the Department of Economics, Society, Politics, University of Urbino. Since 2003 she has taken part in Quality Committee of the Faculty of Economics at the University of Urbino and in 2009 she has become coordinator. She is a member of the Academic Board of the PhD in Economics and Management of the University of Urbino and supervisor of Ph.D. students. From March 2013 to March 2015 she has been a member of the Audit Committee of the University of Urbino and since 2015 she is member or the quality group of the school of Economics. Author can be contacted at **federica.murmura@uniurb.it.**