

THE MULTIPLE PERCEPTION OF INNOVATION: THE CASE OF MICRO AND SMALL ENTERPRISES IN THE REGION OF EASTERN MACEDONIA AND THRACE

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Abstract

This paper explores how innovation is perceived, on the one hand, by the scientific literature and, on the other, by the everyday practice of small and micro enterprises operating in the less developed socioeconomic system of the Greek region of Eastern Macedonia and Thrace. Our aim is to find out whether there are different perceptions of innovation from two different “worlds”, the theoretical and the practical. For this, we conducted an introductory and qualitative field research on a sample of small and micro enterprises in the region of Eastern Macedonia and Thrace. We found there is a notable distance in the perception of innovation between the scientific theory and the everyday practice of micro and small enterprises in this less developed region in Greece.

Research paper

Keywords: Innovation multiplicity; Innovation definitions; Micro and small enterprises; Region of Eastern Macedonia and Thrace

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Introduction: The multiple perception of innovation

The concept of innovation can only be multifaceted, complex, ambiguous and evolving. In this way, a single definition of innovation (Baregheh, Sambrook, & Rowley, 2009; Kogabayev & Maziliauskas, 2017; Lazzarotti, Samir Dalfovo, & Emil Hoffmann, 2011; Tanha et al., 2011; Matthews & Brueggemann, 2015; O’Sullivan & Dooley, 2008) can not include all the dimensions and changes within the evolving world of enterprises/organizations, both smaller and larger (Brynjolfsson, McAfee, & Jaquet, 2015; Carayannis, 2013; Drucker, 1986; Fransman, 2018; Nelson, 1993).

In addition, what is often noted in the various studies of organizational innovation is that the research results are vague, usually in their methodology, and complex in their interpretation (Gallego, Rubalcaba, & Hipp, 2013; Hage, 1999; Sapprasert & Clausen, 2012; Sung, Cho, & Choi, 2011; Wolfe, 1994). Therefore, it seems that the study of innovation gives rise to an inexhaustible variety of largely complementary definitions.

The way, of course, that individual analysts perceive and define the phenomenon of innovation always depends on their specific historical background, their individual beliefs and ideology and, ultimately, their particular “optics” they use to interpret the reality. This is also the theoretical root of those approaches –mainly of T. Kuhn (Kuhn, 1962)– which suggest that the scientific inquiry serves prevailing trends and established scientific patterns: the same seems to be true also for the scientific study of innovation.

Therefore, according also to the field research we made and present in section 5 of this manuscript, there are significant divergences in the per-

ception of innovation between the fundamental theoretical approaches on the one hand, and the interpretations by the people of everyday practice on the other (Blenker et al., 2012; Hamilton, 2011). And this is the aim of this paper: to identify the differences in the perception and handling of the concept of innovation between the scientific literature and the people of everyday practice in small enterprises. For this, we study the case of a sample of small and micro enterprises operating in a less developed regional ecosystem in terms of innovation, such as that of Eastern Macedonia and Thrace (Blažek & Csank, 2016; Pylak, 2015; Trippel, Asheim, & Miörner, 2016; Vladoš, Deniozos, & Chatzinikolaou, 2018).

In particular, the region of Eastern Macedonia and Thrace is one of the thirteen Greek regions and is a less developed border region that combines socioeconomic and cultural peculiarities and deficiencies (Boden, 2017; Boden, Marinelli, Haegeman, & Santos, 2015). As a border region is both peripheral, because of its reduced socioeconomic relations with other areas, and disadvantageous due to the existence of inherent weaknesses that impede the development process (Blakely & Leigh, 2013; Boudeville, 1974; Shevlin, McAdam, & Reid, 2014; Woods, 2013).

Methodology and structure of the paper

In order to achieve the goal of identifying the differences in the perception of innovation, our research is structured as follows:

- i. We provide a brief critical review of the basic definitions and types of innovation

- ii. We explore the origin of innovation in a socioeconomic system: Does innovation originate from technology push or demand pull, or from something else in terms of theoretical perception?
- iii. We describe the structure and methodology of the field research we made in the region of Eastern Macedonia and Thrace: our aim is through this introductory research to understand the variety in the perception of innovation by small and micro enterprises in the region.
- iv. We present the basic findings and limitations of the research.

Basic definitions and types of innovation

Innovative activity may come from a variety of alternative paths (Brattström & Hallberg, 2016; Grohs, Raies, Koll, & Mühlbacher, 2016, Rogers, 2003; Salamzadeh & Kawamorita Kesim, 2017), which may involve either the introduction or implementation of an improved product mix, either a new production process, or a pioneering organizational method, or all together at the same time. Therefore, as a minimum prerequisite for the existence and diffusion of innovation, we understand the general increase in the performance of a socioeconomic organization.

Several of the innovative efforts (Jaw, Lo, & Lin, 2010; Malen, 2015) in an organization can be novel and pioneering in their nature, while others, which may also occur in the background of a socioeconomic process, are a prerequisite for the implementation of innovation. In this context, we can see that the overall innovation management framework (Song, Ming,

Han, Xu, & Wu, 2015; Zizlavsky, 2016) requires a coherent, multilevel and structural approach of managing (Kessler, 2004; Mathieu & Chen, 2011; Peccei & Van De Voorde, 2019) the innovative dimensions: whether it is innovation in products or services, or a restructuring of the organization's standards, or a more general improvement of some or all the production processes.

And with these introductory clarifications in mind, we are able to present now some of the fundamental and classical definitions of innovation:

- I. According to the widely cited definition of J. Schumpeter (Schumpeter, 1934, p. 117), innovation can be:

“(1) The introduction of a new good — that is one with which consumers are not yet familiar — or of a new quality of a good. (2) The introduction of a new method of production, that is one not yet tested by experience in the branch of manufacture concerned, which need by no means be founded upon a discovery scientifically new, and can also exist in a new way of handling a commodity commercially. (3) The opening of a new market, that is a market into which the particular branch of manufacture of the country in question has not previously entered, whether or not this market has existed before. (4) The conquest of a new source of supply of raw materials or half-manufactured goods, again irrespective of whether this source already exists or whether it has first to be created. (5) The carrying out of the new organisation of any industry, like the creation of a monopoly posi-

tion (for example through trustification) or the breaking up of a monopoly position”.

II. According to J. Schmookler (Schmookler, 1952, p. 215):

“Innovations either originate new consumer products or improve methods of producing old ones, the latter category including new capital goods. Qualitative changes in existing consumer goods would come under the former. New consumer goods would usually raise the numerator of the output- input ratio, since presumably they either yield greater satisfaction than the goods directly displaced, or release purchasing power for expenditure on other consumer goods, which amounts to the same thing”.

III. According to M. Porter (Porter, 1998, p. 54):

“Innovation means offering things in different ways, creating new combinations. Innovation doesn't mean small, incremental improvements—these are just part of being a dynamic organization. Innovation is about finding new ways of combining things generally”.

IV. According to M. Crossan and M. Apaydin (Crossan & Apaydin, 2010, p. 1155):

“Innovation is: production or adoption, assimilation, and exploitation of a value-added novelty in economic and social spheres; renewal and enlargement of products, services, and markets; development of new meth-

ods of production; and establishment of new management systems. It is both a process and an outcome”.

In general, the previous definitions are helpful to understand that, in the background, the innovative effort, irrespectively of its form, presupposes the systematic combination (Lederer, Schott, Huber, & Kurz, 2013; Mohapatra, 2014) of all processes within the socioeconomic organizations: therefore, there is no action that does not depend and, to a greater or lesser extent, not affected by the dynamics of innovation. As a result, technology and innovation management (Cassiman & Di Guardo, 2012; Morua & Marin, 2016; Mirzadeh et al., 2017), in order to generate and bring the new, must include and integrate all the organizational functions.

The origin of innovation in a socioeconomic system: technology-push or demand-pull?

Due to the complex and interdisciplinary nature of the innovation phenomenon (Ahrweiler, 2010; Cooke, 2013; Hacklin & Wallin, 2013; Mainzer, 2011; Salamzadeh, 2015; Pacheco, Manhães, & Maldonado, 2017), there is probably no single theory that can fully interpret its origin (Godin, 2017; Laperche, Uzunidis, & Tunzelmann, 2008). Such an integrative approach, in any case, would require as a prerequisite the inclusion of all those dynamic socioeconomic factors that introduce any novelty into any socioeconomic system.

In the direction of recognizing the fundamental factors introducing an innovation into a socioeconomic system, economic and management science at-

tempts to distinguish between the origin of innovation in two ways: as a result of technological push or demand pull (Comin, Lashkari, & Mestieri, 2016; Di Stefano, Gambardella, & Verona, 2012; Peters, Schneider, Griesshaber, & Hoffmann, 2012; Pikkarainen, Korkala, Biot, & Deleu, 2012).

- I. In the first approach to the origin of innovation, where the supply-side prevails, the predominant theoretical stream of thought starts with the contribution of J. Schumpeter (Schumpeter, 1942). He suggested that it is the function of entrepreneurship to revolutionize production, something that can happen with the exploitation of an innovation or with the introduction of an untested technological application. However, he described this process of introducing novelties as something which requires a special economic function, because the environment resists in ways that vary according to the present social conditions. In addition, according to Schumpeter (Schumpeter, 1934, p. 223), innovations are not “*evenly distributed through time*” but “*appear, if at all, discontinuously in groups or swarms*” and, therefore, he suggests that economic development, which is the result of innovations, follows periods of cyclical fluctuations of prosperity and recession (see Figure 1).

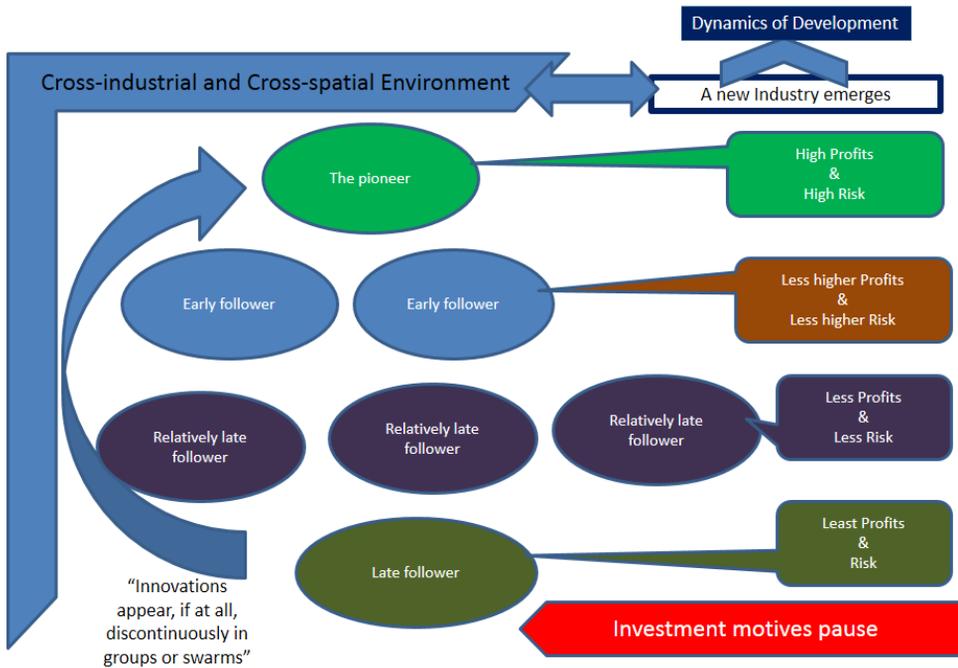


Figure 1. The innovative entrepreneur and the followers

- II. In the second interpretative orientation, market demand is dominant in innovation. In this analytical direction, a fundamental contribution is that of J. Schmookler. In fact, of course, J. Schmookler (Schmookler, 1954) never suggested that the dynamics of demand is the only interpretive factor of the innovation activity. Instead, he was trying to explain that innovation always results from a combination of supply and demand, by focusing on the demand-side.

Therefore, which perspective to the origin of innovation is closer to reality according to the empirical facts?

Several studies (Chandy & Prabhu, 2010; Damanpour & Aravind, 2012; Salter & Alexy, 2014; Salamzadeh et al., 2018) lead to ambiguous conclusions about the origin of innovation. It seems that we cannot overlook neither innovation as the product of technological development and pushing, nor the necessary existence of market acceptance. And how, after all, could demand exist in the absence of a valid response on the supply-side, and vice versa?

What seems to be sounder and useful in interpretative and predictive terms is a mixed and combinational approach. In practice, we think that innovation is probably an evolutionary “mating” between supply and demand, which ultimately creates the overall dynamics of innovation (Bloch & Metcalfe, 2018; Etzkowitz & Leydesdorff, 2000; Nelson, 2013; Nonaka & Takeuchi, 1995) (see Figure 2).

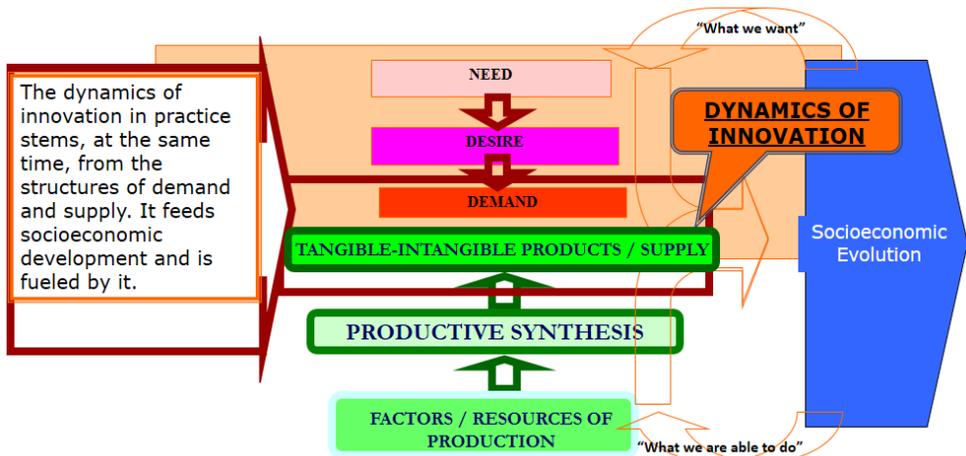


Figure 2. Evolutionary “mating” between supply and demand and the dynamics of innovation

Therefore, in a structural perspective, innovation always emerges as a synthesis (Norrie, 2009; Langley & Sloan, 2011; Morabito, Sack, & Bhate, 2018; Doshmanli et al., 2018) between supply and demand within every socioeconomic system. And because the fundamental challenge of each economic system—defined in space and time—is to adapt its production to the hierarchical societal demands, we understand that the dynamics of innovation is both the fruit and the engine of overall socioeconomic development. In this context, the forces of supply and demand are two evolving and conflictually defined concepts arising from the evolutionary action of socioeconomic actors, in all the historically specific socioeconomic systems (Vlados, Deniozos, Chatzinikolaou, & Demertzis, 2018).

Field research in the region of Eastern Macedonia and Thrace

In this context, in order to understand the multiplicity in the perception of innovation, we present a field research we made in a sample of micro and small enterprises in the Greek region of Eastern Macedonia and Thrace.

The identity and methodology of this research

In particular, we interviewed and obtained data—randomly, in a non-weighted sample—from 48 micro and small private enterprises operating in the region of Eastern Macedonia and Thrace, from various sectors of activity. One of the selection criteria we set was for these enterprises to employ a workforce of up to 50 employees.

The aim of this field research was, in particular, to investigate how the owner or another member of a small business perceives the dimension of innovation¹. This field research is a qualitative research (Shields & Rangarajan, 2013), “not arrived at by means of statistical procedures or other means of quantification” (Strauss & Corbin, 1990, p. 17). In particular, this “qualitative research has an interpretive character, aimed at discovering the meaning events have for the individuals who experience them, and the interpretations of those meanings by the researcher” (Hoepfl, 1997, p. 49). Therefore, we asked general questions in a sample of enterprises in order to study, through personal interviews that reflect the views and assessments of the respondents, the phenomenon of multiplicity in the perception of innovation.

The responsible interviewer initially asked the member of the enterprise to record the name, the subject, the number of employees, the address and contact details of the business. Then, the interviewer had to take and record an interview with the member of the enterprise, who had to answer the following questions about innovation²:

- I. How does your enterprise understand the concept of innovation?
- II. In what way and how do you think can innovation help your enterprise?

¹ The field research was conducted by a group of undergraduate students during the winter semester of 2017, with the personal supervision of the authors.

² The average response time of all four questions ranged in approximately 15 minutes per interviewee, and the raw recorded and transcribed material is available to any interested researcher upon request.

- III. In what specific ways has your enterprise innovated in the recent years?
- IV. What do you think are the main barriers to innovation in your enterprise?

Analysis of findings

Based on the answers to the four questions regarding the respondent's own estimates, we can extract the following conclusions:

- I. With respect to the ways the enterprise understands the concept of innovation, the vast majority of responses indicate that innovation is important for the enterprise, giving mainly definitions related to the availability of some technological application (Internet, social media etc), which can improve the enterprise's current returns (mainly increase in turnover).

It seems that the majority of these locally established enterprises perceive the correlation of innovation to the creation of profits, however the perception of innovation is limited to something "new" almost exclusively at product level, whose "discovery" arises spontaneously from practical experience and friction with business customers.

A minority, although, notes that innovation is something quite distant and elusive, the claim of which in the current "conjuncture" of the crisis can probably only intensify competition and cause loss of profits.

Interestingly, there were also some exceptional but sporadic responses that point out that innovation can be the “*opening to new management strategies*” or “*a change on all fronts: a move forward*”.

- II. With respect to the ways an innovation can help the enterprise, the vast majority of respondents refer to the facilitation that certain technological applications (energy, internet, mechanical) can provide in order to limit the personal work of the owner.

It is worth pointing out that the majority of the answers to the second question are overlapping with the first question, showing significant similarities. It seems that the respondents were unable to distinguish the concept of innovation definition from the specific systematic ways that can lead to innovation.

A minority of the respondents, however, seems to realize that innovation is an improvement in business organization, focusing mainly on the aspect of sales and end-user satisfaction, and showing a willingness to increase their clientele.

Interestingly, there were some extraordinary and highly outnumbered responses that point out that “*innovation makes you stand out*” or “*innovation helps every enterprise to be modern*” or “*the adoption of innovation can help at every stage of the enterprise*”.

- III. With respect to the specific ways the enterprise innovated during the last years, the vast majority of respondents appear divided into two major categories: those enterprises that refer to innovation as the introduction of new end-products and to those who tend to

face the current crisis as a highly staggering process that invalidates any innovative effort.

A minority also notes that the ways in which their enterprise has innovated in the recent years is by the introduction of technological applications or machinery and, more generally, by the upgrading and renovating of the customer's reception area (the retail store).

In this context, we got some interesting responses such as: *“innovation is a new product”* or *“we have created quality products recently to be more competitive in this global environment we live”* or *“... we just sell coffee, we have not discovered anything important”* or *“there is a stagnation and I cannot talk about many innovative things. Whatever I did, this was certainly before 2010”*.

IV. With respect to the main barriers to innovation in the enterprise, the overwhelming majority of respondents focused on the lack of financial resources and on the factors that impede financially the business (factors such as economic difficulties, over-taxation of entrepreneurship, the current economic crisis, the ineffective legal framework, the lack of banking loans).

A significant minority, however, notes that it is not so much the external factors that affect the operation of the enterprise and its innovation, as much as the entrepreneur's approach and attitude.

Interestingly, there were also some responses in this direction, which appeared to be more “progressive”, such as: *“the main obstacle is sticking to anything old”* or *“to the professional normally there should be no obstacles,*

you have to set small goals and slowly achieve them” or “obstacle is knowledge: if there is an obstacle to innovation, this is to find the person who can bring the knowledge”.

Basic conclusions and limitations

The presented research has resulted in some key conclusions as starting points for further deepening in the future. To sum up, we can mention the following:

- I. By the vast majority of the responses we got, we understand that most of the enterprises of the kind and magnitude we studied have a much narrower view of innovation compared with the classical theoretical approaches: the narrow concept of product innovation seems to dominate, in direct contradiction to the wider and more comprehensive definitions of innovation (Crossan & Apaydin, 2010; Porter, 1998; Schumpeter, 1934).

An important part of the responses suggests the dominance of technological dimension to innovative action, leaving the strategic and managerial dimension in a secondary position. This, of course, can only be incomplete for the overall developmental conditions of each organization: in order to generate the phenomenon of innovation, every socioeconomic organization must always synthesize internally its strategic, technological and managerial capacity. We converge to the view, that the root of innovation and, therefore, the basis of competitive survival in the to-

day's business world, is how any socioeconomic organization synthesizes effectively its dynamic strategic, managerial, and technological, potentials (Vlados, 2004, 2005, 2012; Vlados, Katimertzopoulos, & Blatsos, 2019).

- II. The majority of responses shows that innovation does not result from a comprehensive organizational process (Crossan & Apaydin, 2010; Hage, 1999; Porter, 1998; Wolfe, 1994) but, on the contrary, most of the respondents, perceive innovation as something sporadic, exogenous, unexpected and almost always with very narrow functional focus.
- III. The majority of responses seems to overcome the practical division of the origin of innovation, either in terms of technological push or demand pull (Schmookler, 1954; Schumpeter, 1934); the respondents of our sample of small enterprises understand innovation as something that is technically feasible and desired by the customer, at the same time.

Overall, the work we presented in this article helped us to verify, in a first reading, the long distance that separates the perception and handling of innovation between the scientific literature on the one hand, and the “real” perception in the business field on the other, and, in particular, in the field of micro and small enterprises operating in a less developed regional ecosystem, such as that of Eastern Macedonia and Thrace. At the same time, it gives us the first empirical sample in terms of a qualitative research, which

can be helpful to specialize our field research questions in the future, in order to deepen our understanding in this particular field.

Of course, these conclusions are subject to many constraints. Among these, the most important are (a) the small size of our sample, (b) the lack of representativeness of this sample, and (c) the narrow qualitative nature of the conducted research through open and unscaled questions.

By addressing these limitations in a later stage, we identify a set of critical questions that can be answered to fill specific research gaps in the future, such as: (a) Why do the less developed socio-economic systems lag in terms of innovation and what can we do about that? (b) What major factors inhibit local innovation and socioeconomic development? (c) How does the perception of innovation relate to innovation performance of particular regions?

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