

Commonalities and Dissimilarities in the Process of Innovation Management. A Comparable Perspective Based on Business Size

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Abstract

Innovation is essential in the development of well-established companies, and economies. Companies that place a high priority on innovation are better prepared to overcome obstacles and to identify new growth opportunities. However, developing an effective innovation strategy can be a difficult and complicated task.

To study the way innovation is approached in food organizations, in Romania, was carried out exploratory research, structured on 5 important topics: how organizations are defining innovations, what kind of innovations are developed, how innovation is implemented and managed, what measurement methods are used, and which is the strategy for the innovation management.

The aim of the paper is to point out the commonalities and dissimilarities in the definition and process of innovation in small and medium organizations in parallel with big organizations. The authors could reveal important aspects to be considered for an innovation management model that could fit all food businesses, regardless of size.

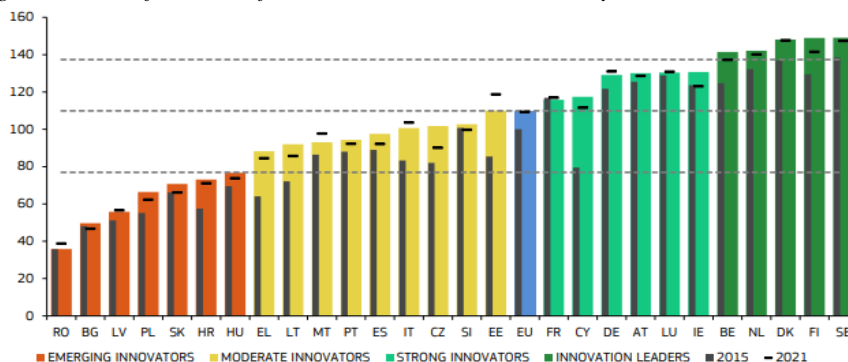
Key words: Innovation management, Innovation measurement, product innovation, process innovations, business development

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1. Introduction

The annual European Innovation Scoreboard (EIS) classified the Member States into four performance groups based on their average performance (compared to the EU in 2022): emerging innovators, moderate innovators, strong innovators, and innovation leaders. With results far below the EU average, Romania is classified as an Emerging Innovator.

Figure no. 1. Performance of EU Member States' innovation systems



Source: (European Innovation Scoreboard 2022 – Executive Summary)

Still, "innovation matters everywhere". According to National Innovation data from 2016-2018, we have the confirmation that innovative organizations have the biggest part of the economic growth, 82% and big companies owned 50% (Popescu (Iacobescu), 2021, p.944). Therefore, it would make sense to go forward with our research and find out more about how innovation is defined, implemented, measured, and managed in food organizations from Romania.

Companies which are using new management techniques, with innovation in focus, are the ones with positive development, at the national level and could expect future growth (Mateescu et al., 2015). Most likely, the proportion of businesses in Romania that view innovation as a crucial component of development is increasing. We are optimistic that more businesses will succeed in the future by attempting to "get better every day," increasing the proportion of creative businesses. (Kylläinen, 2018).

We have conducted exploratory research, to find out more about how innovation is approached in Romanian organizations from food industry. After conducting the research, a comparable analysis based on business size was developed, to uncover motivating and beneficial elements of innovation management. The purpose of the study was to uncover important aspects to be taken into consideration for the development of a Model for monitoring and measuring the impact of innovations in business that could be applied to all food companies, regardless of size.

The paper is structured in tree parts. We start with the literature review and the details on research methodology followed by the main findings with detailed similarities and discrepancies between small and medium companies versus large companies from food organizations from Romania and we will end with the conclusion where are cumulated the recommendations obtained from the analyze on similarities and differences with important aspects to be considered in the future research activities related to innovation management.

2. Literature review

Overall, a literature review on innovation management highlights the importance of creating a culture of innovation, developing effective innovation strategies, and implementing a structured and systematic approach to the innovation process. Collaboration and partnerships and effective measurement metrics are also crucial components of successful innovation management. Organizations can boost the effectiveness of their innovation processes by focusing on using external and internal innovation resources and putting innovation principles into practice (Olaru *et al.*, 2015, p.1129-1141).

The innovation management strategy should be part of the development strategy of the organization, should be part of the top management priorities and is recommended to be correct implemented (Lafley&Martin, 2013). For the execution of the main tasks from the innovation management, a system for reasons and motivations for continuous improvement should be considered, next to relevant KPIs for measuring each part of the process (Dobbs&Koller, 2015, p.55-65). For the performance in each part of the innovation process execution, companies should consider a system for the Innovation Management. For that, the following aspects could be considered: monitoring, control, improvement, coordination, and motivation. (Lohman *et al.*, 2004, p.267-286).

On a worldwide scale, it is widely acknowledged that entrepreneurship boosts competition and a capacity for innovation creates new, long-lasting jobs, resulting in socioeconomic well-being and dictating the development of society and civilization (Ene *et al.*, 2020, p.493).

In the present paper, the definition used for innovations, is the definition from OSLO Manual, which after 2018, splitted innovation into two categories: 1) Innovation in products; 2) Innovation in processes (OECD, 2018). Process innovations contains organizational, marketing, and process innovation from the previous guidebook.

Another important aspect is the innovation impact measurement. Measuring innovation capacity is one of the innovation metrics used by academics, corporate managers, and innovation policy makers. Innovative performance is used to define innovative capacity. It is the innovation process output which combines efficiency and resources (Vasin and Gamiduelleava, 2015, p.124-139). A suitable metric for quantifying innovation should also include comparing, setting goals, identifying weaknesses, the existing data and current inputs, and innovation measuring across all dimensions (Solomon, 2016),

By tracking the innovation management metrics, companies can track the impact of their innovation initiatives and make informed decisions about future development.

3. Research methodology

Starting with December 2022, exploratory research was conducted, in order to examine how innovation is approached in Romanian companies from food industry. The information was gathered during a three-month period, until March 2023, from 54 businesses.

There was a questionnaire with 26 questions, which was sent to 320 food industry businesses. The method used for questionnaire distribution was by sending emails containing a link to the questionnaire to 320 businesses in the food industry. The research's main goals were to gain a better understanding of how innovation is perceived and applied in Romanian businesses and more detailed, to examine how companies are defining innovation, what kind of innovations they develop, how are those implemented and how is measured the impact of innovations in business.

The questionnaire was divided into 5 sections:

- How innovation is defined in businesses: Defining innovations
- Innovation types: what kinds of innovations have been used in enterprises.
- Innovation management: its administration and application
- Measuring innovations: what techniques are employed.
- The innovation management strategy.

The purpose was also to examine the similarities and discrepancies between large and small businesses' approaches to innovation management.

4. Findings

For identifying the main similarities and differences in the management of innovations in Romanian companies, depending on the size of the companies we have conducted an exploratory study, based on the responses received from 54 enterprises of which:

- 72% were micro-enterprises, small and medium-sized enterprises.
- 28% large enterprises (over 250 employees).

In terms of turnover, the large companies surveyed have 93% over 10 million euros and 7% under 2 million euros. Small and medium enterprises have 71% under 2 million euros, and 29% for 2 million euros.

The comparative analysis was carried out between small and medium enterprises vs. large enterprises. There were highlighted 14 similarities and 10 differences in terms of the way Romanian food industry companies define, classify and manage innovation-related activities.

Similarities:

1. Most of the companies surveyed, 86% have implemented a quality management system or another system that supports quality management in its processes

2. Most of the companies surveyed, 89% had strategy changes related to innovation or sustainability

3. Regarding the types of strategies used in the last 3 years, we could say, from the analyzes carried out, that small and medium-sized companies and large companies, to the same extent (more than 50%), prefer strategies focused on the introduction of new products and increasing the quality of the products offered.

4. Most of the surveyed companies, 89% consider themselves innovative (82% of small and medium-sized companies and 100% of large companies).

5. 75% of companies (68% of small and medium-sized companies and 86% of large companies) consider the main type of innovative activity for the company to be the launch of new products (products that were not in the portfolio until the time of launch).

6. Related to the way in which innovations are defined, over 55% of the surveyed companies (32% of small and medium-sized companies and 64% of large companies) consider newly launched products in the last 2 years as innovations, 58% of the surveyed companies (50 % of small and medium-sized companies and 71% of large companies), consider innovations new business divisions.

7. 75% of the surveyed companies (64% of small and medium-sized companies and 93% of large companies) believe that the quality management system or another management system implemented has influenced the organization's vision related to innovation and the way innovation is treated in the company.

8. Related to innovation within the organization from the point of its management, most of the answers, 50% of large companies and 41% of small and medium-sized companies, consider innovation to be an activity they carry out permanently.

9. The types of activities, in the post-launch analysis, of new products classified as the most important for the company, were the sales in value and in volume: for 78% of companies (50% of large companies and 41% of small and medium-sized companies).

10. Most companies, 83% (100% of large companies and 73% of small and medium-sized companies) measure the impact of innovations in business.

11. Most companies, 94% of the surveyed ones (100% of large companies and 91% of small and medium-sized companies), consider important and very important, the measurement of the impact of the value generated by new products in the total turnover.

12. Regarding the concern for the pursuit of sustainability within the surveyed organizations, 100% of them have projects for the pursuit of sustainability.

13. 92% of the surveyed companies (100% of large companies and 86% of small and medium-sized companies) have sustainability integrated in the business strategy or in other programming documents of the company.

14. In the next 5 years, 78% of the surveyed companies (100% of large companies and 64% of small and medium-sized companies), have sustainability-oriented innovations in their plans.

Discrepancies:

1. Strategy changes related to sustainability and innovation took place recently, in the last 3 years, for many small businesses (59%), while most large companies, 64% had strategy changes related to sustainability and innovation in the last 5-10 years.

2. Regarding the preferred types of strategy when it comes to innovation, we observed that for large companies, 71% is preferred a strategy oriented towards solutions to specific consumer needs, while for small companies a strategy oriented towards the introduction of new products or strategies oriented towards increasing the quality of the products offered.

3. Regarding the organization, there is a preference of small and medium-sized companies, 55% for "Regular brainstorming sessions with the aim of thinking about improvements within the business" while 86% of large companies prefer as type of organization "groups or multifunctional work teams".

4. Related to innovation within the organization from the point of view of its management, 50% of large companies consider it strategic, included in the annual planning activity, while for 32% of small and medium-sized companies it is an activity that they carry out sporadically, without planning.

5. Regarding the types of new products offered, 64% of small and medium-sized companies prefer standardized products, offered in the same way to different consumers (mass customization), while 64% of large companies prefer products created to meet the needs of specific consumers (personalization).

6. In addition to quantitative sales, more than 50% of large companies use other indicators in the post-launch analysis of products: numerical / weighted distribution of new products (important for 86% of large companies and 27% of small and medium-sized companies), shelf rotation of the new products (important for 57% of large companies and 23% of small companies), impact of marketing activities (important for 50% of large companies and 14% of small companies), financial impact (important for 79% of large companies and 36% of small companies).

7. Related to how the impact of innovations in business is measured, most small and medium-sized companies measure quantitative and value sales. Most large companies 86% measure the impact of innovations in business by calculating the percentage of value sales generated by new products in the total turnover.

8. Regarding the frequency with which the measurement of the impact of innovations in business is carried out, for 77% of small and medium-sized companies this happens annually or never (for 41% annually and for 36% never) and for 71% of large companies, the impact of innovations in business it takes place monthly.

9. Regarding the use of a benchmark for measuring innovation within the company, 45% of small and medium-sized companies do not have a benchmark, 55% have a previously calculated value as a benchmark, while all large companies use a benchmark.

10. Regarding the use of standards in the company's activity, 59% of small and medium-sized companies rarely use standards and 14% never, while 71% of large companies use standards very often.

5. Conclusions

In order to study the way innovation is approached in food organizations, exploratory research was carried out in Romania, structured around 5 important themes: how organizations define innovations, what kind of innovations are developed, how innovation is implemented and managed, what methods of measuring the impact of innovations in business are used and what is the innovation management strategy.

After conducting the research, a comparative analysis was developed based on the size of the organizations. Small and medium enterprises and large enterprises were analyzed in parallel. The purpose of the analysis was to identify beneficial elements of innovation management.

14 commonalities and 10 differences in the definition and process of innovation in small and medium-sized organizations in parallel with large organizations were highlighted.

According to INS data, large organizations drive the most consistent part of economic growth, therefore analyzing how large organizations manage innovation, we could reveal important aspects that must be considered for the creation of a Model for monitoring and measuring the impact of innovations in business that could be applied to all food companies, regardless of size.

The following recommendations in the management of innovations in food industry organizations could be considered:

- the implementation of a quality management system or another system that supports quality management in its processes because the quality management system or other management system implemented has influenced the organization's vision related to innovation and how innovation is treated in the company.
- implementing strategy changes for innovation and sustainability
- related to the types of organization, we could recommend to companies that in addition to regular brainstorming sessions with the aim of thinking about improvements within the business, they should also organize groups or multifunctional working teams.
- Regarding the types of new products offered, all companies should address also standardized products, offered in the same way to different consumers (mass customization) but also products created to satisfy the needs of certain consumers (customization).
- innovation within the organization, from the point of view of its management, must be considered strategic, included in the annual planning activity.
- the launch of new products must remain the main innovative activity for the company
- definition: innovations are newly launched products in the last 2-3 years.
- innovation is an activity that must be carried out permanently.
- within the post-launch analysis of new products, the following indicators must be analyzed: quantitative sales, numerical / weighted distribution of new products, shelf rotation of new products, impact of marketing activities, financial impact.
- All innovative companies must measure the impact of innovations in business. The easiest way is to use the same KPI, in which is measured the percentage of the value sales generated by the new products in the total turnover of the company.
- Related to the frequency with which the measurement of the impact of innovations in the business is carried out, this must happen quarterly with annual data or even monthly.
- Regarding the use of a benchmark for measuring innovation within the company, it is recommended to use a previously calculated figures, or a category or industry level value provided by market research companies.
- Regarding the use of standards in the company's activity, following the analysis carried out, we recommend the use of standards as often as possible.

We conclude, after examining all outputs of the commonalities and differences in the definition and process of innovation in small and medium organizations in parallel with big organizations, that it makes sense to consider all recommendations identified in the description of an innovation management model, that could fit all food businesses, regardless of size.

6. References

- Dobbs, R. & Koller, T., 2015. *Playing to Win: The new global competition for corporate profits*, McKinsey
- Ene (Vasile), C.M., Viziniuc, C. and Bigea, M.V., 2020. The Effects of the Fear of Failure on the Success in the Business Environment. In: R. Pamfilie, V. Dinu, L. Tăchiciu, D. Pleșea, C. Vasiliu eds. *6th BASIQ International Conference on New Trends in Sustainable Business and Consumption. Messina, Italy, 4-6 June 2020*. Bucharest: ASE Publishing House.
- European Commission, Directorate-General for Research and Innovation, European Innovation Scoreboard 2022 – *Executive summary*. Publications Office of the European Union, 2022, <https://doi.org/10.2777/563149>
- Kylliäinen J., 2018. *Measuring Innovation – The Definitive Guide to Innovation Management KPIs*, [online] Available at: <<https://www.viima.com/blog/how-to-measure-innovation-kpis>> [Accessed 9 March 2021].
- Lafley A.G., Martin R. L., 2013. *Playing to win*, Harvard Business Press.
- Lohman, C., Fortuin, L. and Wouters, M., 2004. Designing a performance measurement system: A case study. *European Journal of Operational Research*, 156(2), [https://doi.org/10.1016/S0377-2217\(02\)00918-9](https://doi.org/10.1016/S0377-2217(02)00918-9)
- Mateescu, R., Olaru, M., Lange, S., Rauch, M. (2015), Study On Supplier Invoice Risk Management in A Global Supply Chain, *The 26th IBIMA conference on Innovation Management and Sustainable Economic Competitive Advantage: From Regional Development to Global Growth*, Madrid, Spain.
- OECD/Eurostat, 2018. *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation*, 4th Edition, The Measurement of Scientific, Technological and Innovation Activities. Paris/Eurostat, Luxembourg: OECD Publishing,
- Olaru, M., Dinu, V., Keppler, T., Mocan, B. and Mateiu, A., 2015. Study on the open innovation practices in romanian SMEs. *Amfiteatru Economic*, 17(SI 9).
- Popescu (Iacobescu), I., 2021. Innovation matters everywhere. In: R. Pamfilie, V. Dinu, L. Tăchiciu, D. Pleșea, C. Vasiliu eds. 2021. *7th BASIQ International Conference on New Trends in Sustainable Business and Consumption. Foggia, Italy, 3-5 June 2021*. Bucharest: ASE Publishing House, pp. 939-945, <https://doi.org/10.24818/BASIQ/2021/07/117>
- Solomon, Y., 2016. *Measuring Innovation, Part 2/3: The Criteria for a Good Innovation Index*. [online] Available at: < <https://www.innovationexcellence.com/blog/2016/05/10/measuring-innovation-part-23-the-criteria-for-a-good-innovation-index/> > [Accessed 9 January 2022].
- Vasin, S.M., and Gamidullaeva, L.A., 2015. Methodical Approach and Tools to Improve the Efficiency of Managing of the Innovation Potential in the Context of Economic Globalization. *Review of European Studies*, 7(3), <https://doi.org/10.5539/res.v7n3p124>.