Application of Management Innovations in the Bulgarian Wine Industry

D Pastarmadzhieva and M Angelova

1Faculty of Economic and Social Sciences, University of Plovdiv Paisii Hilendarski, 4000 Plovdiv, 24 Tzar Asen str, Bulgaria

daniela.pastarmadzhieva@uni-plovdiv.bg

Abstract. The innovations are of crucial importance for the contemporary business development. Management innovation is one of the groups of innovations that can be applied and according to the scholars it has the potential to enhance the competitiveness of the enterprise. As the wine industry is a key sector of the Bulgarian economy, it is essential for the wine producers to select a relevant type of innovations for their enterprise. Thus, the aim of the current study is to identify if the Bulgarian wine producers are ready to implement management innovations and if this decision is associated to some factors. The object of the study is Bulgarian SMEs wine producers. The focus is their activity, regarding the management innovations. The results are obtained through an online survey, conducted from December 2019 to January 2020. The results show that the priorities of Bulgarian wine producers are the management innovations, related to processes and resources, the employees and the knowledge.

1. Introduction

The role of innovations for the development is a topic, which has been examined since 19th century [1]. However the most recent development in the concepts of innovations alongside with the increasing role of ICTs transforms and enhance the approaches to the implementation of innovations. The innovations are relevant for every area – personal, economic and business and for the states as well. Nowadays countries adopt special innovation strategies for various areas in order to achieve competitive advantages.

Wine industry is a traditional sector of the Bulgarian economy with high potential for development. It is also a leading sector in Bulgaria. In the International Organization of Vine and Wine (OIV) Statistical Report on World Vitiviniculture in 2018, Bulgaria was ranked 21st in the world, regarding wine production, and 24th as for the area of vineyards [2]. However, regarding the production, sales,
consumption, import and export indicate that there is a necessity of imposing a policy for promotion and realization of the Bulgarian wines on more foreign wine markets. Given that there is a need to limit production capacity and the need for technical and technological upgrading for the majority of producers of goods, given the availability of more funds. Thus, the sector requires more efforts regarding the marketing, product and production innovations [3].

Alongside, the management of a company is of essential importance for its innovativeness and competitiveness. The innovations in the area of management can enhance its effectiveness and support the functioning of the whole enterprise. Thus, the aim of the current study is to identify if the Bulgarian wine producers are ready to implement management innovations and if this decision is associated to some factors. The object of the study is Bulgarian SMEs wine producers. The focus is their activity, regarding the management innovations. The results are obtained through an online survey, conducted in the period December 2019 - January 2020 through structured interviews using own questionnaire. The collected data is processed with IBM SPSS Statistics and frequencies and cross tables are used.

The article is structured as follows: following the introduction, in the second part is described a conceptual framework of innovations, innovations in wine industry and the management innovations in particular. This analysis paves the way for the third part, in which is highlighted the methodology of the study. The fourth part introduces the obtained results of the survey and discussion based upon the figures. The paper closes with conclusions and recommendations for future research in the field of investigation the management innovations in wine industry.

### 2. Literature review

The very concept of innovation appeared for the first time in scientific research in the 19th century. The concept was gained in the early 20th century by the Austrian scholar Joseph Schumpeter [1]. According to Schumpeter [4], the term “innovation” means an amendment to introduce and use new types of consumer goods, new production and transport means, markets and forms of organization in production. The end result of the process is creating a new product, service, process, or form of organization.

Nonetheless, the innovation activity is related to various factors starting from personal to national level. The overall environment plays significant role on the entrepreneurial and innovation activity [5]. To some extent the countries like Bulgaria, who transformed their economy from central planning into a market one have their own challenges in policy-making [6], respectively in the implementation of innovations.

However, during the last decade, the Bulgarian economy has achieved macroeconomic stability and growth. Various measures were implemented in order to improve the environment for doing business especially for SMEs. Entrepreneurs exploit new opportunities and are associated with disturbing the market equilibrium. They often revolutionize industries overturning long-established technologies, business models and dominant companies [7]. In order to do so, they innovate and take risks.

In the Oslo Manual 2018 (4th edition) OECD innovations are classified in two major groups – product innovation and business process innovation. Product innovations can be innovations of goods and of...
services. Business process innovations include innovations in production of goods or services, distribution and logistics, marketing and sales, information and communication systems, administration and management, and product and business process development [8]. Thus, the management innovations are in the second group. Innovations are essential for the development of wine industry as well [9]. The scholars, who examine the innovations in wine industry identify that they apply mostly product and marketing innovations [10] [11] [12].

Although management innovations are not in the top list of the wine producers, they are crucial for the sustainable development of a company [13]. Management innovations can be defined as “implementation of new management practices, processes and structures that represent a significant departure from current norms” [14]. The examination of management innovations allows scholars to identify the dynamics of the way a company is managed, its progress and if the used approach enhances its effectiveness over time [15].

Management innovations’ impact on the organizational performance is predominantly positive. One of the positive results is related to improvement of the company’s competitiveness. The latter is related to the fact that the effective management can boost the effect of technical and technological innovations. Management innovations are also related to the competitiveness as they has impact on “productivity, delivery time, quality and flexibility”. Furthermore, the studied type of innovations transforms the daily routines of the company and enhance its overall performance. Nevertheless, the wine producers have to implement the management innovations in an adequate way, because in some cases they may have negative effect [16].

3. Methodology of the study

The methodological framework consists of a structured interview, conducted in the period December 2019 - January 2020. The survey includes four sections: general information about the respondent, information about the enterprise, innovations section and competitiveness section. Section Innovations is the most important and it consists of a list of fifty (50) innovations. For each of them the respondents are invited to select one of the following answers: 1-Not applicable to us, 2-We know about this opportunity, but we would not apply it, 3-We know about this opportunity and we would apply it, 4-We apply it now, and 5-We applied it in the past.

The current paper presents some of the results of the survey. In the latter all the SMEs wine producers were invited to take part in the online survey by e-mail and some of them were personally contacted. As a result, 156 online questionnaires were sent by e-mail and 57 of them participated in the survey which represents 37% response rate, thus the collected data provides relevant results. The statistical methods, used in the study are frequencies and cross tables. The latter is used in order to identify if there is an association between the application of management innovations in the company and various factors. The examined factors are: years of functioning of the enterprise, size of enterprise, additional activities, markets for production realization, sources of financing and sources of raw material. The figures display the share of answer 3-We know about this opportunity and we would apply it and answer 4-We apply it now.
4. Results and discussion

As figure 1 shows, a significant share of wine producers apply or would apply some kind of management innovations. The most applied innovation is the optimization of business processes as all of the SMEs wine producers apply (55.6%) or would apply (44.4%) such. It is followed by more efficient use of resources (95.8%), further education and advanced training of employees (92.3%) and exchange of knowledge regarding production (92.2%). Thus, the priorities for the wine producers are processes and resources, the employees and the knowledge. The least preferred management innovation is the use of private consultants as 40.9% apply it and only 22.7% would apply it.

![Figure 1. Application of management innovations among SMEs wine producers, 2019](source)

As concerns the revision of organizational procedures, they are applied mostly by the medium-sized enterprises (50-250 employees), who use finances mostly by National programs and use imported material for their production. The oldest SMEs are least likely to implement revision of organizational procedures (only 43% of them). Such result is explainable as they are experienced and know what works for their enterprise. (Fig. 2)
The further education and advanced training of employees as management innovation is applied predominantly by medium-sized enterprises (50-250 employees), which have functioned for over 10 years. They are implemented by enterprises, which rely on national programs for financial resources and use imported material for their production. The newest enterprises are less ready to make further education and training for their employees. (Fig. 3)

**Figure 2.** Association between revision of organizational procedures and a selection of factors, 2019

Source: Own data

**Figure 3.** Association between further education and advanced training of employees and a selection of factors, 2019

Source: Own data
However, it should be noted that in almost every of the examined groups the share of those who implement or would implement such innovations is over 90%. It is 83% only for the enterprises, who function for 6 to 10 years. (Fig. 3)

We already mentioned that exchange of knowledge, regarding the production is one of the most implemented management innovations. It is preferred by micro (up to 10 people) and medium-sized (50-250 people) enterprises. These are enterprises, which have been functioning for 6-10 years or over 15 years. Again, all of the SMEs, who use financial resources from national programs implement this kind of innovations. The group of the enterprises, who produce with imported material is the most innovative as regards the exchange of knowledge, regarding the production. The SMEs, who are least ready to apply the latter are the ones, which function for 11-15 years (67%). (Fig. 4)

![Figure 4. Association between exchange of knowledge regarding production and a selection of factors, 2019](source: Own data)

All of the medium-sized enterprises (50-250 people), who sell their production worldwide make research initiatives as part of their management innovations. The same is also valid for those, who use grape from suppliers and imported material. Those SMEs, who rely on National programs for financing are least likely to implement such innovations. (Fig. 5)
Figure 5. Association between research initiatives and a selection of factors, 2019

Source: Own data

The use of private consultants is the least applied innovation. However, 100% of the medium-sized enterprises implement such, as well the companies, who use financial resources from National Programs. (Fig. 6)

Figure 6. Association between use of private consultants and a selection of factors, 2019

Source: Own data
More efficient use of resources is one of the most preferred innovations. It is applied by all micro (up to 10 people) and medium-sized (50-250 people) enterprises, alongside with those, which have functioned for over 10 years. 100% of the wine producers, who sell their production worldwide also apply them. The same is valid for the ones, who use imported material and grape from suppliers. The SMEs, who rely on national programs are least likely to think about more efficient use of resources. (Fig. 7)

![Figure 7. Association between more efficient use of resources and a selection of factors, 2019](source: Own data)

**Conclusion**

Innovations and innovation activity are a booster of the competitiveness of a company. Bulgarian wine industry as a significant sector in the economy needs to enhance its performance. The innovations can contribute to high extent for the latter and the management innovation also can add value to this process. The obtained results indicate that a significant part of the Bulgarian SMEs wine producers implement or are ready to implement management innovations. The latter is a positive indication and can lead to the improvement of the competitiveness of the sector. The most applied management innovations are the optimization of business processes, more efficient use of resources, further education and advanced training of employees and exchange of knowledge regarding production. The least preferred management innovation is the use of private consultants. The implementation of management innovation is mostly spread among the SMEs, who are medium-sized and work for over 15 years. Alongside, an interesting result is that almost all these type of innovations are applied by all the wine producers, who rely on national programs for funding, who sell their production on world markets and who use imported raw material for the production of wines. However, these findings require further investigation and more efforts in order to identify the reasons for the results.
References

[1] Schumpeter J A 1949 Economic theory and entrepreneurial history, in Center for Research in Entrepreneurial History, Harvard University (ed.), Change and the Entrepreneur. Postulates and Patterns for Entrepreneurial History, (Cambridge, MA: Harvard University Press, pp. 63-84)

[2] International Organization of Vine and Wine 2018 World Vitiviniculture Situation, OIV Statistical Report on World Vitiviniculture

[3] Angelova M, Pastarmadzhieva D, Dimitrova G and Georgiev P 2019 Innovative Practices in Wine Industry: Opportunities for Competitiveness Enhancement in Bulgaria, IEEE, International Conference on Creative Business for Smart and Sustainable Growth (CREBUS), Sandanski, Bulgaria, doi: 10.1109/CREBUS.2019.8840046

[4] Schumpeter, J A 1946 The Future of Private Enterprise in the Face of Modern Socialistic Tendencies, in Swedberg R. (ed.) Joseph A. Schumpeter. The Economics and Sociology of Capitalism, (Princeton: Princeton University Press, 1991 (1st edition 1946), pp. 401-405)

[5] Pastarmadzhieva D and Angelova M 2019 Optimization of Bulgarian Political Culture as a Prerequisite for Enhancement of the Entrepreneurship, IEEE, International Conference on Creative Business for Smart and Sustainable Growth (CREBUS), Sandanski, Bulgaria, doi: 10.1109/CREBUS.2019.8840081

[6] Vilisov M V 2017 Political strategies of Belarus, Kazakhstan and Russia: Problems of formation and practical implementation, Political science (RU), Special issue, pp. 41-62

[7] Hisrich R, Peters P and Shepherd D A 2017 Entrepreneurship (10th ed.) (New York: McGraw-Hill Education)

[8] 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, OECD Publishing, Paris/Eurostat, Luxembourg. https://doi.org/10.1787/9789264304604-en

[9] Karagiannis D and Metaxas T 2018 Innovation in Food & Wine Tourism Related Businesses: Turning Ashes to Gold, In Management and Marketing of Wine Tourism Business: Theory, Practice, and Cases, Marianna Sigala, Richard N. S. Robinson (Eds), (New York: Springer) pp. 345-363.

[10] Wood E and Kaplan D 2005 Innovation and performance improvement in the South African wine industry, Int. J. Technology and Globalisation, 1(3/4), pp. 381-399.

[11] King L and Forbes S L 2013 Exploratory analysis of marketing innovations in the New Zealand wine industry, Working Paper, Faculty of Commerce, Lincoln University, Lincoln, New Zealand,
Acknowledgments

This article is a part of a project № KP-06-М25/5/17.12.18, financed by National Science Fund, Ministry of Education and Science, Bulgaria.