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InnoTools – InnoStrategy

Innovators – Type, Context and Business Practice in the Balkan Mediterranean Area

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INTRODUCTION

The development of this product is the result of the implementation of the contract BMP1/1.2/2370/2017, for the project Innovations Platform and Tools for increasing the innovation capacity of SMEs in the Balkan – Innoplatform, financed by the EU transnational cooperation programme “BalkanMediterranean” 2014-2020.

Developed by 6 PPs covering all 5 countries of Balkan MED area, the main project objective is to facilitate innovation and support the commercialization of innovation in SMEs with a focus on growth and internationalization.

Project’s specific objectives are:

- SO1: to assess the current national and regional environment and its challenges when it comes to innovation, growth and internationalization of businesses;
- SO2: to advance existing knowledge and develop common understanding on business model innovation with a focus on internationalization;
- SO3: to develop expertise, tools, and guidelines for strengthening SMEs capacities to introduce product and process innovations;
- SO4: to establish a supporting network of Centres of Excellence in Innovations, to foster transnational cooperation, and provide external expertise and support to SMEs in introducing innovations; and
- SO5: to raise awareness on the importance of innovations for the survival, growth and internationalization of SMEs.

The methodology includes approaches, methods and techniques for the collection, classification and systematization of the data required for generating knowledge on the business model innovations which are present in the countries of the Balkan Mediterranean Area. The collection and analysis of data will be made separately for the territories of each of the five countries involved in the project "INNOPLATFORM" - Albania, Bulgaria, Cyprus, Greece and FYR Macedonia.

The document was developed in accordance with the rules of the Transnational Cooperation Programme "Balkan-Mediterranean" 2014-2020 and the requirements set out in the Application Form for the project “Innoplatform”.

The methodology contains detailed information on the methods for visualization of information through examples of presentation, content, tables, graphs, figures, maps, etc.

I. GENERAL INFORMATION ABOUT THE PROJECT "INNOPLATFORM"

The project "Innoplatform" is implemented under Priority Axis 1 - "Entrepreneurship and Innovation", SO2: Innovative territories and Investment priority 3d – supporting the capacity of SMEs to grow in regional, national, and international markets, and to engage in innovation processes.

OVERALL OBJECTIVE OF PROJECT

Developed by 6 PPs covering all 5 countries of Balkan MED area, the main project objective is to facilitate innovation and support the commercialization of innovation in SMEs with a focus on growth and internationalization.

MAIN ACTIVITIES TO ACHIEVE THE DEFINED MAIN OBJECTIVE

The project intends to address these challenges through a well-tailored set of activities as are:

1. assessing the current national and regional environment and its challenges when it comes to innovation, growth and internationalization of businesses;
2. advancing existing knowledge and developing common understanding on business model innovation with a focus on internationalization;
3. developing a set of specific tools to support the capacity of SMEs to introduce product and process innovations;
4. establishing a network of Centres of Excellence in Innovation as the knowledge and expertise holders providing advice and guidance to SMEs, consultants and public actors across the region; and
5. raising awareness and disseminating expertise through info days, trainings and conferences.

EXPECTED RESULT OF THE IMPLEMENTATION OF THE PROJECT:

The main outputs of the project are:

1. National and regional assessments on the current environment for innovation, growth and internalization; and
2. Two specific web based services (1) InnoScorecard for assessing and ranking the nations/regions; and (2) InnoRegion, a collaborative and informative web based service focused on the dominant industry in the region of each partner.
3. Common knowledge and understanding on business model innovations for internationalization in a form of a Study and Guidelines developed though field research
4. Set of innovations tools based on web 2.0 (InnoTools) to strengthen SMEs capacity to systematically and successfully introduce product and process innovations – related to SO3.
5. Establishment of 6 Centres of Excellence to provide outside expertise and support SMEs in introducing innovations and facilitating their cooperation with the research institutions.

II Contribution of the Research for the achievement of project objectives

The profiling of the Innovators in the BalkanMed area contributes towards the realization of Deliverable 4.1. of the project Innoplatform:

1. Identification of the scope of business model innovations;
2. Identification of determinants of business model of innovations;
3. Identification of BalkanMed SMEs challenges when it comes to successfully introducing innovations and business model innovations.

By meeting the preceding objectives, the methodology becomes the input for the Deliverable 4.3., and Deliverable 4.5.

III Methodology

The methodology for mapping SME's innovators in the Balkan Mediterranean area and their corresponding external and internal context is performed in line with the work methodology for WP4.

It consists of two steps:

1. Mapping of SME's Innovator Types from the microdata of the Community Innovation Survey for each of the Balkan Mediterranean Countries. CIS is a Survey conducted by the EU, which covers a three year period of innovation activities of enterprises in the EU. The last available data were released in 2018 and cover the period from 2014 till 2016.
   The CIS survey is a survey on the innovation activities of companies. Despite being very accurate in mapping of the Innovator Types, and providing a good Background to our Analysis, it has several limitations which challenge our quest for profiling the Innovator types in the Balkan Mediterranean Area. These limitations are:
   - CIS is focused on behavior and does not explore the drivers for the innovation activities, and the internal and external context in which enterprises operate.
   - CIS survey for the BM countries does not include micro enterprises and their innovation activities, i.e. its only focused on the small and medium enterprises. As the BM countries are characterized with dominant presence of micro enterprises in the structure of the economy (in average 80%), CIS data do not provide a detailed profiling of the Innovator types;
   - CIS is not performed for Albania;
   - CIS cannot accurately profile the Business Model Innovators and identify its types.

2. CIS limitations are overcome with the second step in mapping the BM innovators – Online Survey of SMEs in all BM countries conducted by InnoPlatform Project Partners. The survey explores five concepts:
   - Innovator Activities of SMEs
   - SME's Business Practice
   - SME's Innovativeness
   - External Turbulence; and
   - Performance

Each concept is defined in Appendix 2 along with the measurement model for the same as used in the Survey. The survey questionnaire is provided in Appendix 3.

In line with CIS recommendations, InnoPlatform survey is performed on SMEs including the micro enterprises in the A-N NACE categories. This makes InnoPlatform survey innings comparable to CIS findings for the small and the medium enterprises.

IV. Findings - Mapping of Innovators, Activities and Practice in the Balkan Mediterranean Area

1. Background - CIS Mapping

The private sector in the Balkan Mediterranean Region (Albania, Bulgaria, Cyprus, Former Yugoslav Republic of Macedonia, and Greece) is characterized by dominance of micro enterprises. The total number of Micro Enterprises (1-9 employees) is 1.427.303 for 2016, with the highest number of 764.471 located in Greece. SMEs (10-250 employees) correspond to 77.929 in 2016, with 28.816 located in Bulgaria. Large enterprises correspond to 3.159 for 2016, with 1.690 of them located to Albania (above 250 employees), as well as the foreign controlled enterprises, which total number is 6.764, with 4.024 located again in Albania.

The CIS survey 2014-2016 was conducted in Bulgaria, Cyprus, Former Yugoslav Republic of Macedonia, and Greece, targeting enterprises operating in specific sectors which belong to the A-N NACE categories named Innovator sectors. Micro enterprises were not included in the survey. Data on all innovation activities are provided in Table 4.1a for the small and the medium enterprises and per country.

We are still awaiting entry into CIS database – We have been informed by end of this week.

2. InnoPlatform Survey Findings

Innoplatform SME's survey has been administrated online to a pool of a more than 5 000 SMEs which possess the required attributes: are SMEs (including the micro enterprises), and operate predominantly in the A-N industrial sectors according to NACE classification.

1149 SMEs were approached for the survey, while there are 401 fully responded surveys. The survey analysis of the partially responded questionnaires (270) indicates no major difference in the answers of responses of the full and partially responded questionnaires.

Surveyed SME's operate in all countries, participants in the Interreg Balkan Mediterranean Programme: FYR of Macedonia, Greece, Albania, Bulgaria and Cyprus. The details of the demographic analysis of the surveyed SMEs are provided in Appendix 1.

SMEs are predominantly small enterprises, or 84,3%, out of which more than 80% are micro enterprises with less than 9 employees. Micro enterprises dominate the structure of the business entities in all BM countries. The majority of surveyed SMEs are in growth or mature phase of their life cycle development, i.e. in 80% of the cases and regardless of the country in question.

The average age of the SMEs is 12 years, and there are no major differences in this regard among the participating countries. In average 16% of the SMEs belong to an enterprise group. Half of the surveyed SMEs are family owned businesses, which is of no surprise for the Balkan Mediterranean Area, while in average 40% of the SMEs are either owned or managed by a Woman, or have a Woman in the executive team.

Surveyed SMEs come from all NACE innovator sectors (A-N), while the highest number of SMEs operate in the primary industries and services: IT and communications, manufacturing and trade – more than 50% of the surveyed enterprises.

According to OECD(2005) classification on the type of innovators accepted by the EU and applied in EU with the Community Innovation Survey from 2008 onwards, there are four distinctive types of innovators.

1. Product/Service Innovators
2. Process Innovators
3. Organizational Innovators
4. Marketing Innovators

According to the EC paper on business model innovators from 2014, all innovators which in certain period of time introduce all of the four categories of innovations: product/service, process, organizational, and marketing can be regarded as business model innovators (BM Innovators).

2.1. Basic Innovator Types

2.2.1. Product/Service Innovators

According to EU CIS (2014), a product/service innovator is an SME which has introduced product/service innovation in a certain period of time. In the current survey the period is limited to 12 months. According to the EU CIS (2014),

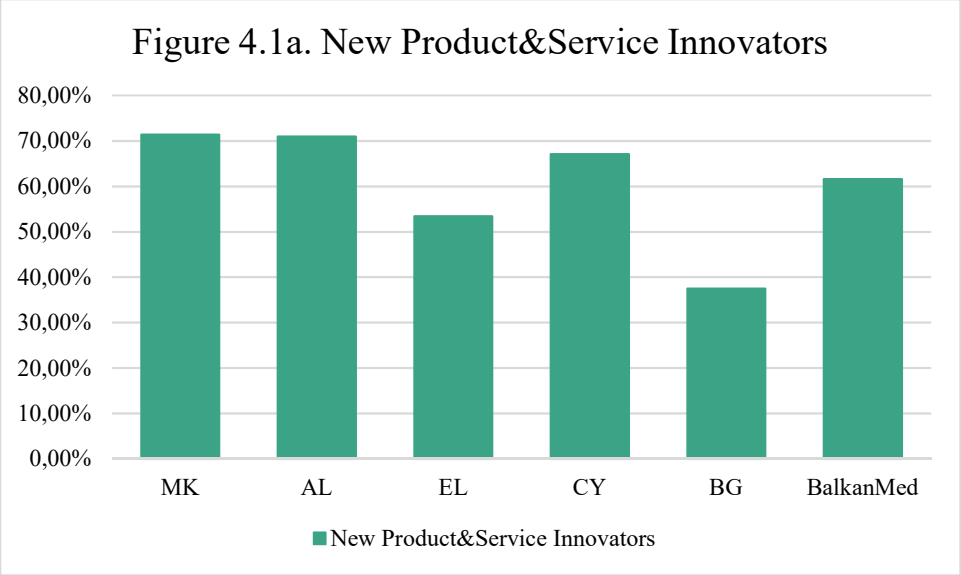
"*A product innovation is the market introduction of a new or significantly improved good or service with respect to its capabilities, user friendliness, components or sub-systems.*

- *Product innovations (new or improved) must be new to your enterprise, but they do not need to be new to your market.*
- *Product innovations could have been originally developed by your enterprise or by other enterprises or organisations.*

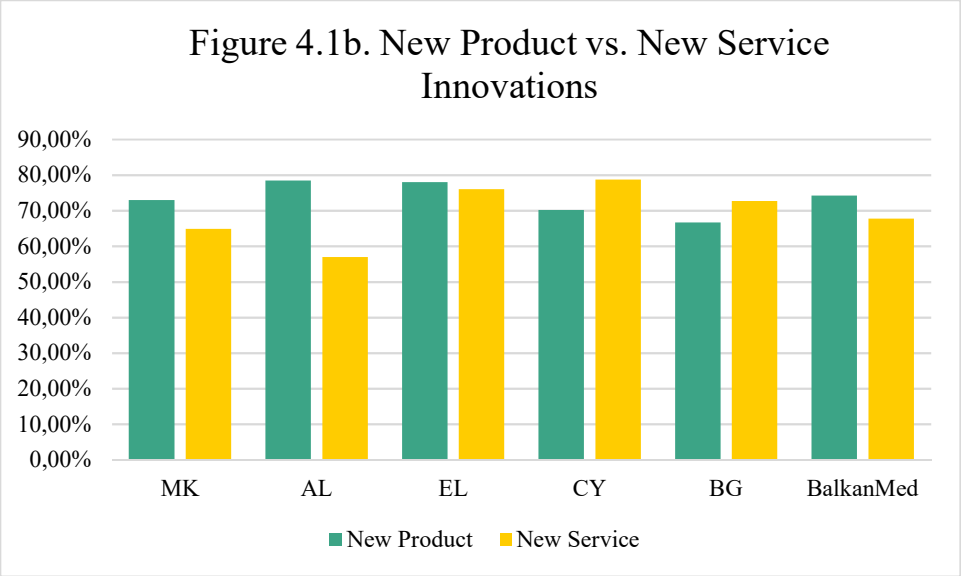
A good is usually a tangible object such as a smartphone, furniture, or packaged software, but downloadable software, music and film are also goods. A service is usually intangible, such as retailing, insurance, educational courses, air travel, consulting, etc."

Findings indicate that in average ***61% of the surveyed SMEs in the Balkan Mediterranean area introduced either a new product or a new service in the past 12 months*** (i.e. 2017).

- There are significant differences among SMEs from the participating countries; SMEs from non-EU member countries, Albania and FYR of Macedonia have higher values than the BalkanMed average.
- There are significant differences among the product/service innovators depending on their size. Micro enterprises reported higher values than the BalkanMed average.

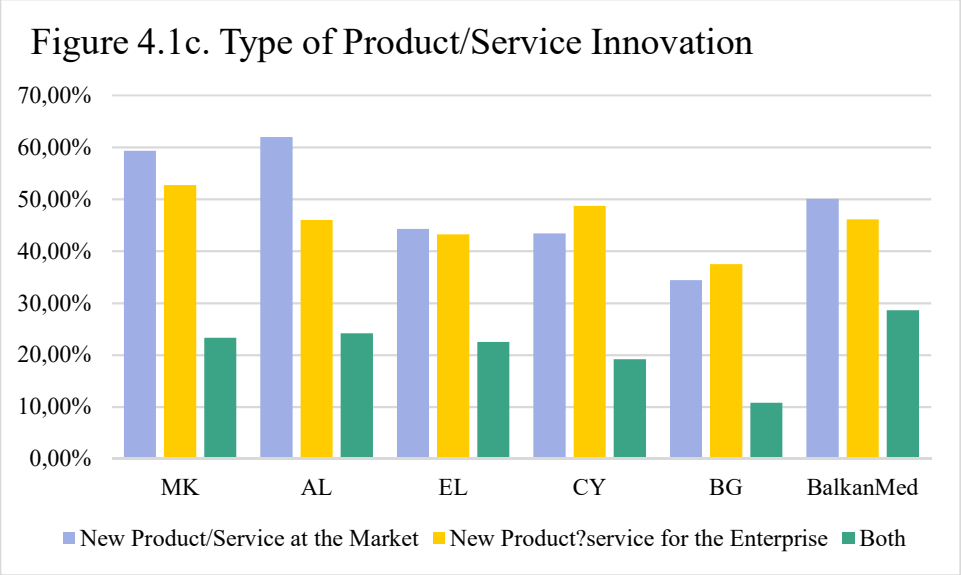


Out of the SMEs which introduced a new product, or service in the past 12 months, in average 72% introduced new products (goods) while 67% introduced new services – Figure 4.1b. There are no significant differences among SMEs from different countries.



As indicated on Figure 4.1c, in almost half of the cases, the new products or services, were new to the market (50%), or new for the enterprise (46%). Only 29% of the SMEs have introduced products/services which were both, new to the markets and to the enterprise.

There are significant differences among SMEs from the participating countries; the correlation however although significant, is weak, i.e. Pearson correlation coefficient of -0.194 for a new product at the market and -0.188 for a new product for the enterprise. SMEs from non-EU member countries, Albania and former Yugoslav Republic of Macedonia indicated more intensive innovation activities compared to the BalkanMed average



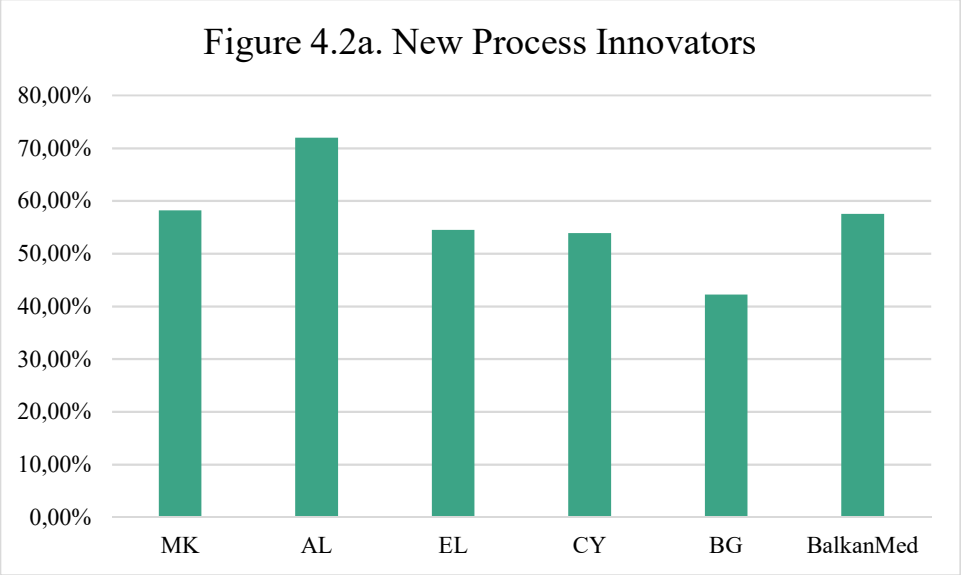
2.2. Process Innovators

According to EU CIS (2014), a process innovator is an SME which has introduced process innovation in a certain period of time. In the current survey, the period is limited to the past 12 months (i.e. 2017). According to the EU CIS (2014),

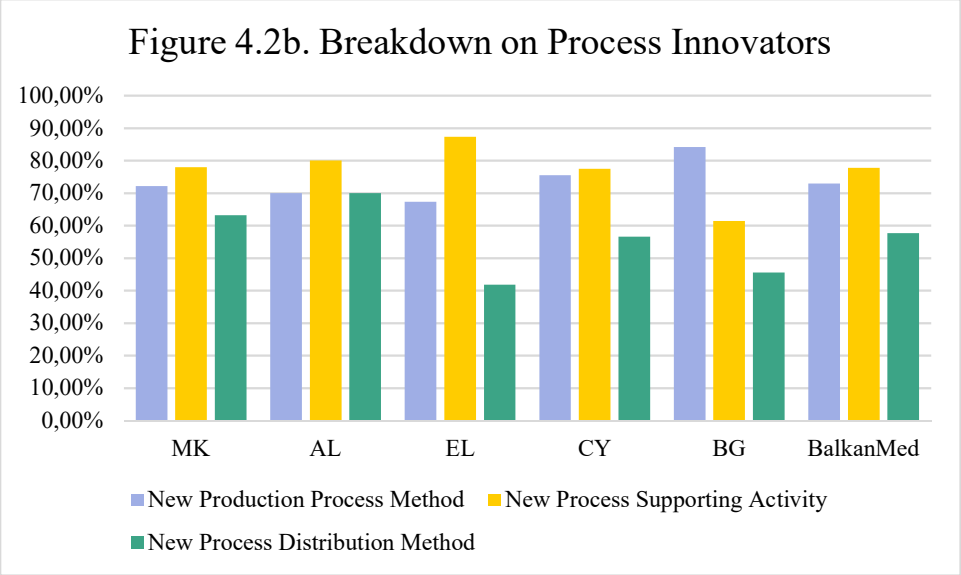
"*A process innovation is the implementation of a new or significantly improved production process, distribution method, or supporting activity.*

- *Process innovations must be new to your enterprise, but they do not need to be new to your market.*
- *The innovation could have been originally developed by your enterprise or by other enterprises or organisations.*
- *Exclude purely organisational innovations*"

As indicated on Figure 4.2a., in average 57% of the surveyed SMEs in the Balkan Mediterranean area introduced a new process in the past 12 months (i.e. 2017). There are significant differences between the countries. The correlation however although significant, is weak. SMEs from non-EU member countries, Albania and former Yugoslav Republic of Macedonia indicated more intensive innovation activities compared to the BalkanMed average.



Out of the SMEs which introduced a new process in the past 12 months, in average 75% introduced new production process method, while 79% introduced new process supporting activity and 59% introduced new process distribution method – Figure 4.2b.



2.3. Organisational Innovation

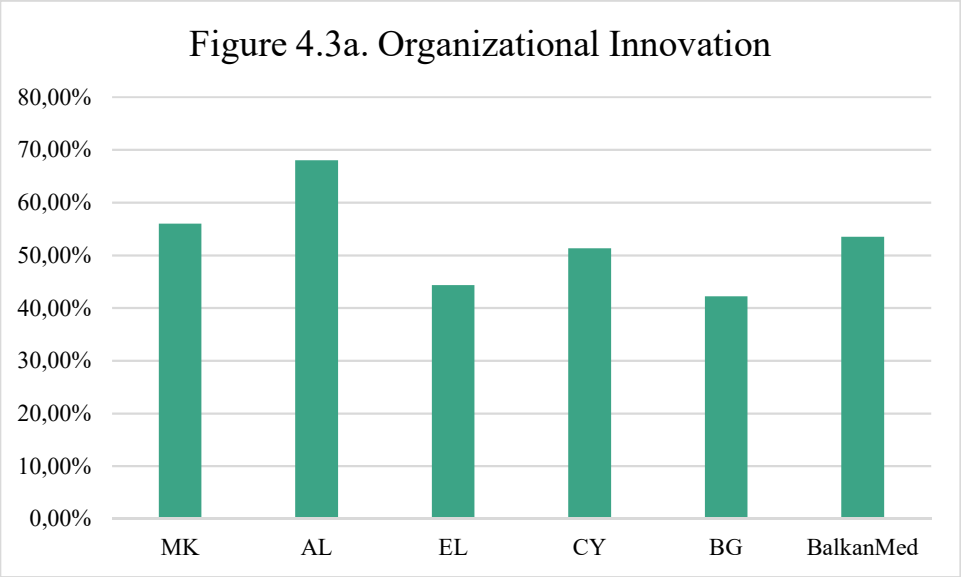
According to EU CIS (2014), an organisational innovator is an enterprise which has introduced an organizational innovation in a certain period of time. In the current survey, the period is limited to the past 12 months (i.e. 2017). According to the EU CIS (2014),

"*is a new organisational method in your enterprise's business practices (including knowledge management), workplace organisation or external relations that has not been previously used by your enterprise. In the process, each type is defined as..*

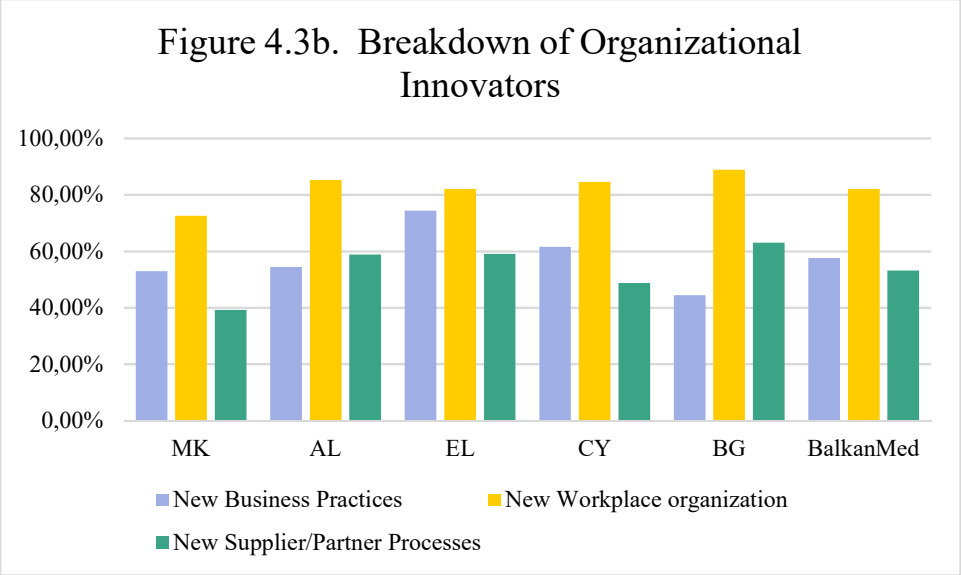
- *New business practices for organising procedures (i.e. first time use of supply chain management, business reengineering, knowledge management, lean production, quality management, etc)*

- *New methods of organising work responsibilities and decision making (i.e. first time use of a new system of employee responsibilities, team work, decentralisation, integration or de-integration of departments, education/training systems, etc)*
- *New methods of organising external relations with other enterprises or public organisations (i.e. first time use of alliances, partnerships, outsourcing or sub-contracting, etc)*

As indicated on Figure 4.3., in average 52% of the surveyed SMEs in the Balkan Mediterranean area introduced an organizational innovation in the past 12 months (i.e. 2017), either a new business practice, a new workplace organization, or new methods for establishing external relations. There are significant differences among the different countries; the correlation however although significant, is weak. SMEs from non-EU member countries, Albania and former Yugoslav Republic of Macedonia indicated more intensive innovation activities compared to the BalkanMed average.



Out of the SMEs which introduced a new organizational innovation in the past 12 months, in average 57% introduced new business practice, while 82% introduced new workplace organization and 53% introduced new supplier/partner processes – Figure 4.3b.



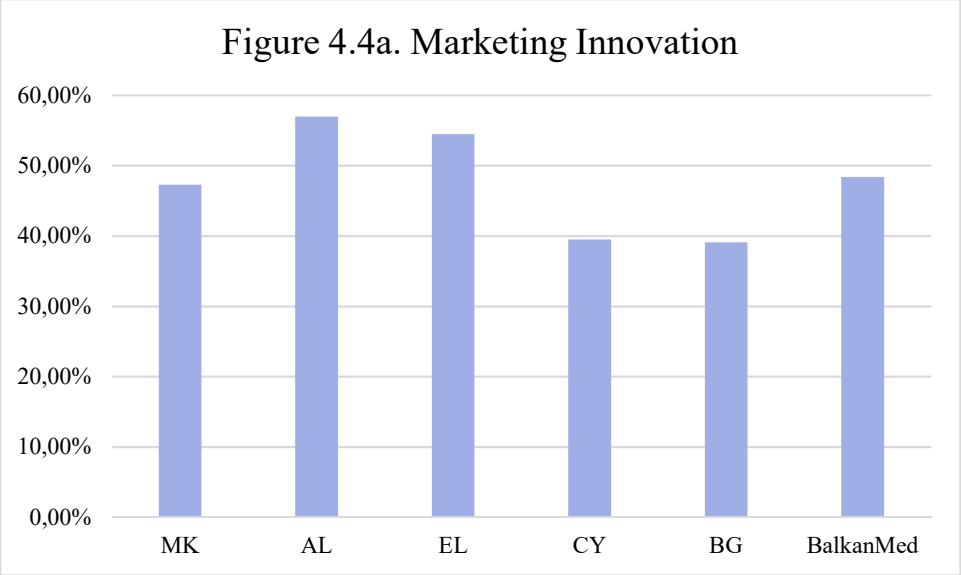
2.4. Marketing Innovation

According to EU CIS (2014), a marketing innovator is an enterprise, which has introduced an marketing innovation in a certain period of time. In the current survey, the period is limited to the past 12 months (i.e. 2017). According to the EU CIS (2014),

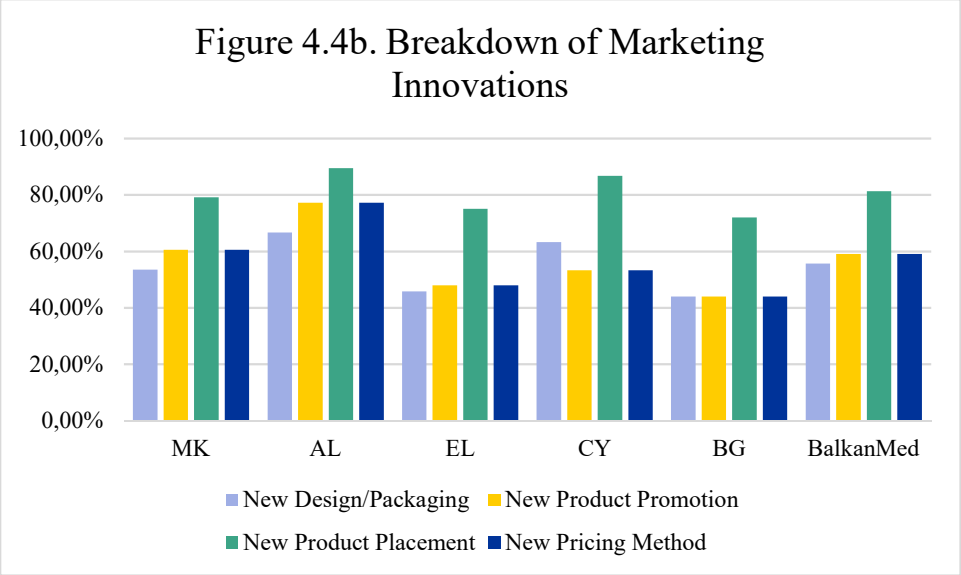
"*A marketing innovation is the implementation of a new marketing concept or strategy that differs significantly from your enterprise's existing marketing methods and which has not been used before.*

- *It requires significant changes in product design or packaging, product placement, product promotion or pricing.*
- *Exclude seasonal, regular and other routine changes in marketing methods.*

As indicated on Figure 4.4a., in average, 48% of the surveyed SMEs in the Balkan Mediterranean area introduced a marketing innovation in the past 12 months (i.e. 2017) – either a new design of the product packaging, a new product promotion, a new product placements, and/or a new pricing method. There are significant differences between the BM countries when it comes to the introduction of a new design of the product packing and a new product promotion; however, there are differences in the case of a new product placement and a new pricing method. The correlation although significant, is weak, i.e. Pearson correlation coefficient of -0.093 for a new product placement, and -0.193 for a new pricing method. SMEs from non-EU member countries, Albania and former Yugoslav Republic of Macedonia indicated more intensive innovation activities compared to the BalkanMed average.



Out of the SMEs which introduced a new marketing innovation in the past 12 months, in average 55% introduced new design/packaging, 59% introduced new product promotion, 81% introduced New Product placement and 59% introduced new pricing method – Figure 4.4b.



3. Business Model Innovators

The business model innovations will derive from the one dimensional innovation types (product, process, organizational and marketing innovations), where all enterprises that have had at least one from each all four dimensions of innovation will be regarded as Business Model Innovators. The approach is not new in methodology on business model innovations. Contrary, even the EU policy paper on identifying the EU BMIs, applies the same approach by using data from the Community Innovation Survey (Barjak et.al. 2014).

Table 4. 1. The Business Model Construct of the Innovation Types.

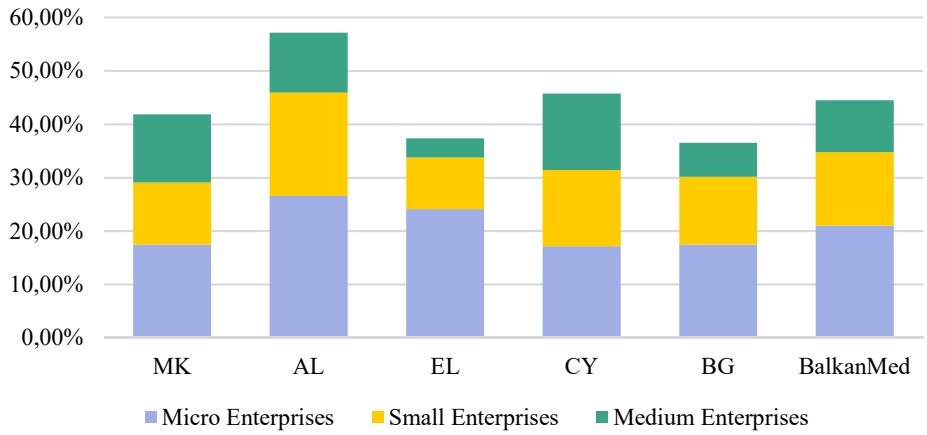
Business model component	Innovation types	Proposition
Value creation	Product innovation	1. New value propositions will in many, if not in most cases, coincide with product innovations.
Business system	Process innovation	2. Changes of business systems can be in the form of changes in the production processes as well as internal and external organization and division of labor along the value chain.
Value capture	Process innovation, marketing innovation	3. A new approach for capturing value will coincide with a process and/ or marketing innovation

The operationalization indicates that Business Model Innovation is a composite type of Innovation (the intersection between Product, Process, Marketing, and Organizational Innovation – Figure 2) (Barjak et al., 2014), and BMIs are mainly changes in the components of the business model:

- Novel Value Propositions: Mainly related to Product Innovations ·
- Novel Business Systems: Changes in Business Systems can be in the form of Process or Organization innovation along the value chain
- Novel Value Capture: New way of Capturing Value will be related with Process and/or Marketing Innovation.

As indicated on Figure 4.5., in average 42.5% of the surveyed SMEs in the Balkan Mediterranean can be classified as business model innovators. There are no statistically significant differences between the BM countries; however, SMEs from Albania reported innovations higher than the BM averages especially among the business model innovations of the micro and small enterprises. Medium sized enterprises with employees higher than 50 have higher percentage of business model innovations compared to the other enterprise types.

Figure 4.5. Business Model Innovators in the BM Area



According to Barjak et.al. (2014) there are three distinctive categories of BM innovators already in initial stage of use among the EU countries. These are:

- **All-round goods innovators** - SMEs with the highest innovation activity, with innovations which have a strong focus on introducing new goods and less on services. The optimization of production methods is also more common, as well as the optimization of internal organizational routines and supply arrangements. Raising the market success of the products (by means of new designs, new placement channels and product promotion innovations) also play important roles. Reference to radical changes; however, the revenue models remained unchanged.
- **Revenue model innovators** - SMEs with strong focus on service innovations and revenue model changes, accompanied with product pricing. There is notable absence of goods and innovations of the organization of work.
- **Small scale business model innovators** - SMEs with all types of innovations, but with a lesser frequency of introduction. In the process innovations, only innovations in the support activities. In the marketing innovations focus is placed on new placement channels to market the products. In organizational innovations, only innovations in the organization of work. In general these are BMIs oriented towards introducing new services and the supporting activities to do this successfully.

The mapping of the BM innovators according to the classification indicates prevalence of the **Small scale business model innovators in all countries of the BalkanMed area.** All-round goods innovators are the second most frequent type of a BM innovator.

Table 4. 2. The Business Model Innovation Types.						
	AL	MK	EL	BG	CY	**Balkan/Med**
All-round goods innovators	8.70%	19.44%	16.13%	39.13%	28.13%	**18.85%**
Revenue model innovators	10.14%	5.56%	6.45%	8.70%	15.63%	**9.42%**
Small scale business model innovators.	81.16%	75.00%	77.42%	52.17%	56.25%	**71.73%**

4. Understanding Business Practice of Innovators

The focus of the InnoPlatform Project penetrates concepts and tools, which main purpose is to provide SMEs with mechanisms to increase their innovativeness. As a result it is important to explore existing business practice of innovators (Ross et al., 2006). The focus is placed on the following elements:

- The operating model of the business system element of the Business model, i.e. on the existing processes and procedures in the system and whether these elements produce value, which supports the organizational performance of the enterprise – Business Practice.

- The use of business model ontologies, or other tools and frameworks, in order to help frame their businesses. The widely-known ontology of Canvas Model, then STOF, VISOR, and other similar ontologies are increasingly being used, especially by the innovative start-ups. Do SMEs use computer of paper based tools, excel spreadsheet, post it notes, or other tools. The result of the business model design will have to be implemented. Operating model, as part of business model, will serve as the basis for this implementation (Ross et al., 2006).
  The translation of the standardization and integration of process requirements into operation by the use of Enterprise Architecture (EA). EA will help specify the detailed business processes while at the same time standardize and integrate them;
- The path in making the decision to innovate.
- The financial sources for the same.

These elements translate into the following variables – Table 4.3.

Table 4. 3. Business Practice Dimensions

Business Practice	➢ Strategic Management and Planning ➢ Introduction of Standards ➢ Enterprise Architecture
Use of Business Model Ontologies	➢ Use of Models and tools of Business Model Ontologies ➢ Use of other tools (computer based, paper based, spreadsheets, other)
Decision making involving Innovations	➢ Strategic top down approach. ➢ Trial and Error process ➢ Team approach ➢ Use of external partners (consultants)
Finance of Innovations	➢ Own sources ➢ Public sources (national and EU) ➢ Private capital (venture capital, business angles)

The findings on each of these elements is explored in the proceeding sections.

4.1. Business Practice

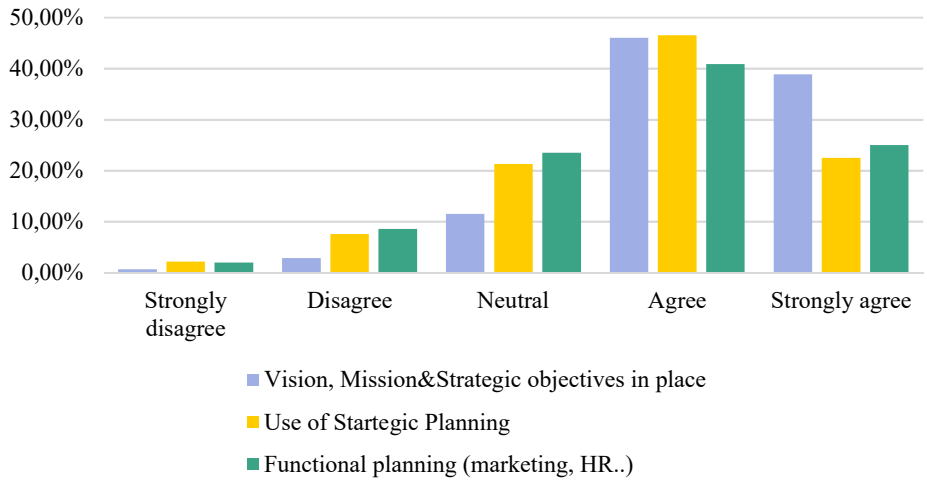
In the concerned research, *Business practice* is defined as the operating model of the business system element of the Business model, i.e. on the existing processes and procedures in the system and whether these elements produce value, which supports the organizational performance of the enterprise.

In the area of **Strategic Management and Planning**, the research explores the use of the following elements:

- A well-defined vision, mission and strategic objectives;
- Use of procedures and tools for strategic planning;
- Marketing, financial, operational, HR planning;

The findings as presented in Figure 4.6. indicate that majority of SMEs operating in the BalkanMed area use strategic management and planning approaches. There are no significant differences among SMEs based on the country of operations; however, there are significant differences between innovators and non-innovators.

Figure 4.6. Strategic Planning and Management



Further, **the use of bi-variate correlations, indicate that all type of innovators have better strategic planning and management compared to non-innovators**. Stronger identification of the impact is explored through the use of binominal logistic regression, where the dependent variables are the *Innovator types*, while the independent variables are the practices of the *Strategic management and planning*. Table 4.4 provides a breakdown of the business practices with strong significance and impact on the different innovator types.

For example, the findings imply that SMEs which practice strategic planning tend to perform better in introducing business model innovations, or Business Model Innovators are characterised by better strategic management and planning practices compared to the non-innovators. Correspondingly the same logic could be applied to all other type of innovators, where there is a significant connection as indicated in Table 4.4.

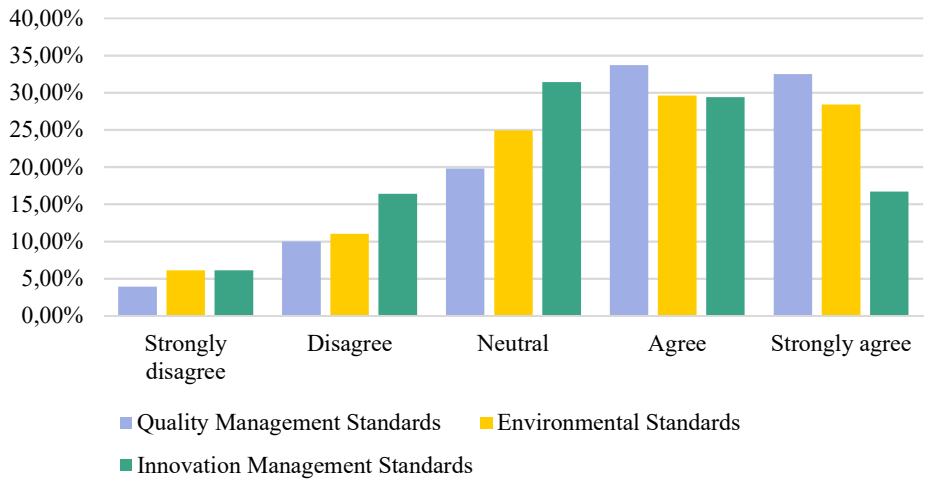
Table 4. 4. Impact on Strategic Management and Planning on the Innovator Type			
	Vision, Mission & Strategic Objectives	Strategic planning	Functional planning
Product Innovators	0.036 (Sig.)		
	1.432 (Exp.B)		
Service Innovators			0.018(Sig.)
			1.419 (Exp.B)
Process Innovators		0.000(Sig.)	
		1.819 (Exp.B)	
Organizational Innovators	0.028(Sig.)	0.036(Sig.)	0.041(Sig.)
	1.487 (Exp.B)	1.409 (Exp.B)	1.37 (Exp.B)
Marketing Innovators		0.085(Sig.)	0.018(Sig.)
		1.327 (Exp.B)	1.437 (Exp.B)
BM Innovators	0.014(Sig.)	0.033(Sig.)	0.022(Sig.)
	1.598 (Exp.B)	1.419 (Exp.B)	1.421 (Exp.B)

In the area of **Standards**, the research explores the introduction and use of the following elements:

- Quality management standards;
- Environmental standards;
- Innovation management standards;

The findings as presented in Figure 4.7 indicate that majority of SMEs operating in the BalkanMed area have introduced standards in their work (Agree and Strongly Agree). There are no significant differences among SMEs based on the country of operations; however, **there are significant differences between the innovators and non-innovators.**

Figure 4.7. Introduction of Standards



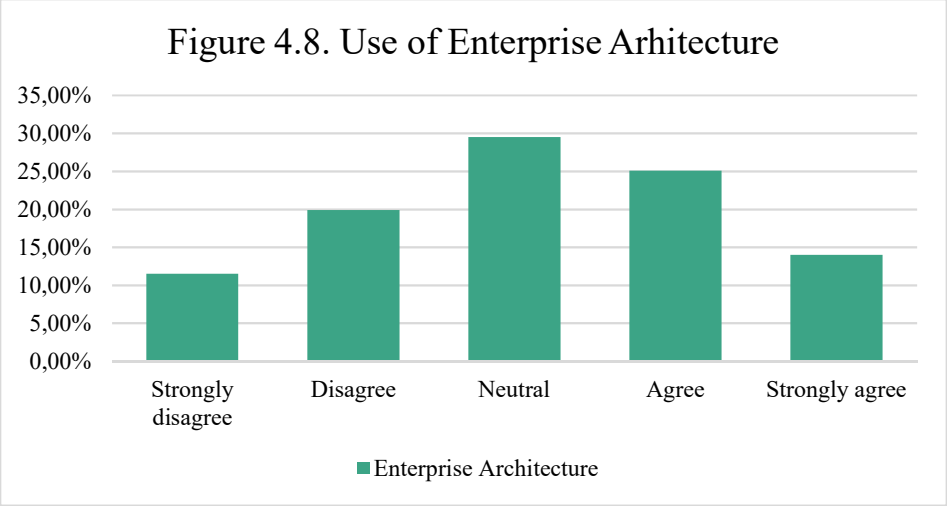
T**he use of bi-variate correlations, indicate that all type of innovators have standards in place compared to non-innovators**. Stronger identification of the impact is explored through the use of binominal logistic regression, where the dependent variables are the Innovator types, while the independent variables are the Introduced and used Standards.

Table 4.5. provides a breakdown of the standards which have a strong significance and impact on the different innovator types. The findings imply that SMEs that have introduced innovation standards/systems outperform the others in terms of introducing different types of innovations, including business model innovations.

Table 4. 5. Impact on Standards on the Innovator Type

	Quality standards	Environmental standards	Innovation standards/systems
Product Innovators		0.003 (Sig.)	
		1.473 (Exp.B)	
Service Innovators			0.040(Sig.)
			1.315 (Exp.B)
Process Innovators			0.057(Sig.)
			1.339(Exp.B)
Organizational Innovators			0.000(Sig.)
			1.8 (Exp.B)
Marketing Innovators			0.000(Sig.)
			1.739 (Exp.B)
BM Innovators			0.000(Sig.)
			2.026 (Exp.B)

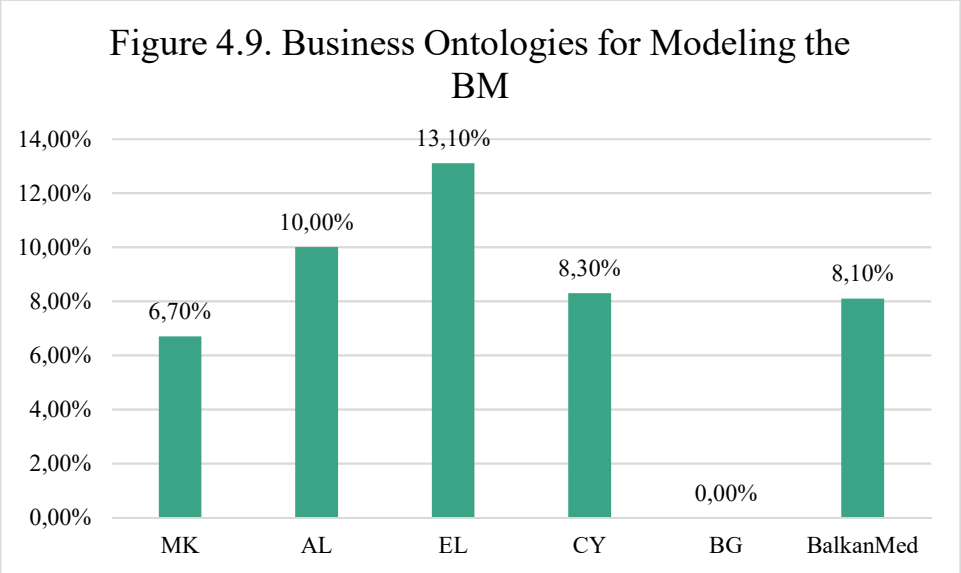
The use of Enterprise Architecture (EA) helps in the specification of the detailed business processes while at the same time it standardizes and integrates them, therefore it is an important business practice of high performing enterprises. The findings as presented in Figure 4.8. indicate that the use of EA in SMEs in the Balkan Mediterranean area is in the range of 40% (Agree and Strongly Agree).



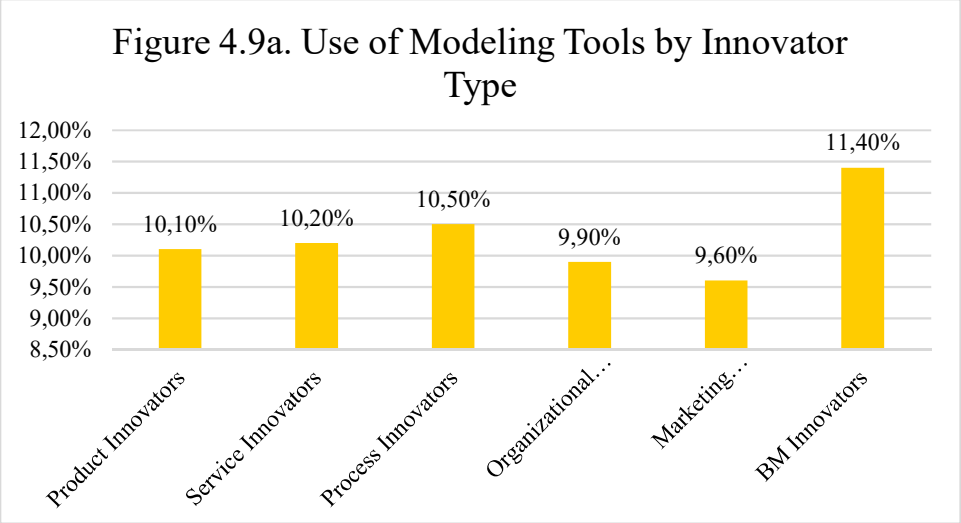
There are no significant differences among SMEs based on the country of operations; however, **there are significant differences between innovators and non-innovators. The use of bi-variate correlations, indicate that all type of innovators use Enterprise architecture compared to non-innovators**.

4.2. Use of Ontologies and other tools for Business Modelling

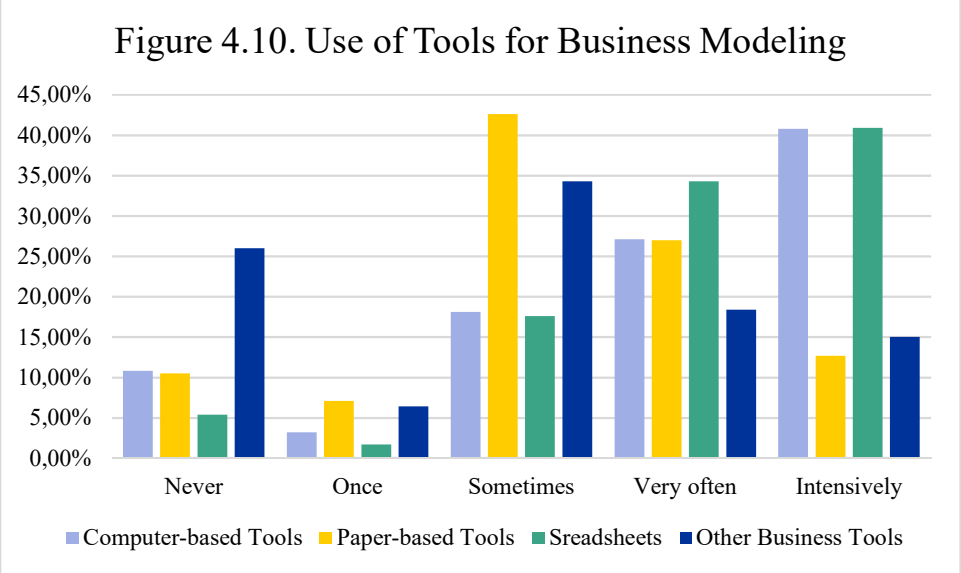
One segment of the business practice explores whether SMEs use business model ontologies, or other tools and frameworks, in order to help frame their businesses and support their innovation efforts. The widely-known ontology of Canvas Model, then STOF, VISOR, and other similar ontologies are increasingly being used, especially by the innovative start-ups.



As presented on Figure 4.9, 8% of the SMEs in the Balkan Mediterranean area use Business ontologies for business modelling. There is no significant difference between the different countries of the BM area, because the numbers of SMEs that use the business modelling are low. The most frequently used tool is the CANVAS model. The breakdown by Innovator type is provided in Figure 4.9a.



The findings on the use of other more conventional tools for modelling the business processes in the organization indicate a different practice. As indicated in Figure 4.10. SMEs **(often and intensively)** use computer-based tools and spreadsheets, while paper-based tools and other tools are used less frequently.



The analysis of the bivariate correlations on the use of the Business tools vs. the Innovator types in Table 4.6., provides deeper understanding on the issue seen through the innovation activities of SMEs. There are no significant differences among SMEs operating in different BM countries. Findings imply that:

- Product innovators are correlated with the use of Other Business Tools, identified as SAP SPSS, Autodesk, In-house software, Case studies, Smartsheet. These tools help in product development.
- Service and Process innovators are correlated with the use of computer-based tools, which could also be argued as a result of the need to model the processes and the internal and external supporting activities.

- Marketing innovators are correlated with both Computer-based tools and Spreadsheets, which again is logical having in mind the need to constantly monitor the product placements and sales performance.
- Organizational and Business Model innovators are correlated with the use of all listed business tools.

These correlations are weak to moderate as the Pearson coefficient is lower than 0.3. However, they exist and can shape our understanding on what differentiates innovators from non-innovators in the business practice.

Table 4.6. Correlations Business Tools vs. Innovator Type

	Computer-based Tools	Paper-based Tools	Spread sheets	Other Business Tools
Product Innovators	0.085	0.027	0.054	.132(**)
Service Innovators	.170(**)	0.029	0.051	0.064
Process Innovators	.138(**)	0.087	0.083	0.069
Organizational Innovators	.203(**)	.151(**)	.161(**)	.108(*)
Marketing Innovators	.142(**)	0.072	.127(*)	0.07
BM Innovators	.153(**)	.114(*)	.133(**)	.158(**)

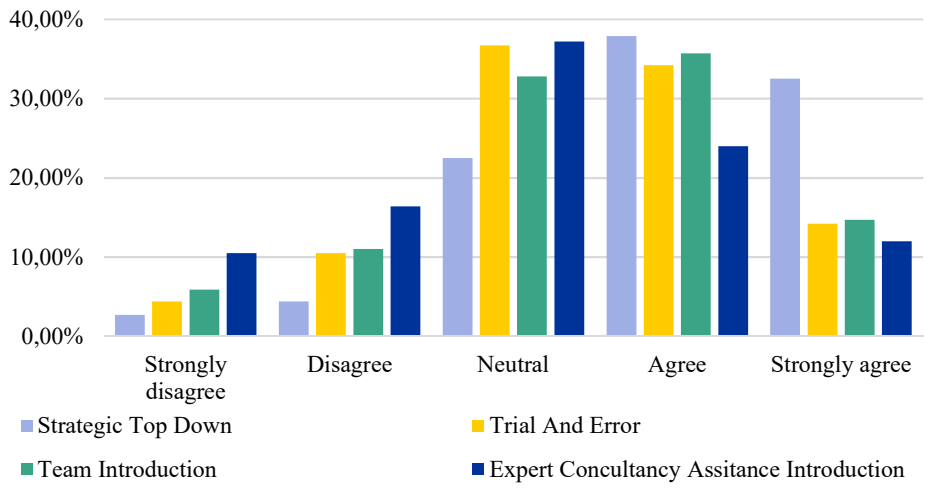
*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

4.3. Innovations and Decision making

The choice of the business model reflects the strategy of an enterprise, as a result, the decision to innovate will more likely come from the management of the enterprise. This decision can be delegated to a specific team that handles the implementation. The enterprise can also ask the help of consultants to reduce the learning curve and hasten the transformation. Figure 4.11. provides the survey findings on whether this is practiced by the SMEs in the Balkan Mediterranean area. The findings imply the following:

- Majority of SMEs in the BM area use a strategic top-down approach when introducing innovations (agree and strongly agree)
- The strong use of the strategic approach is not further reflected in the implementation, as SMEs fail to include internal and external members in the implementation teams in similar percentages.
- There are no significant differences among the SMEs operating in different BM countries.

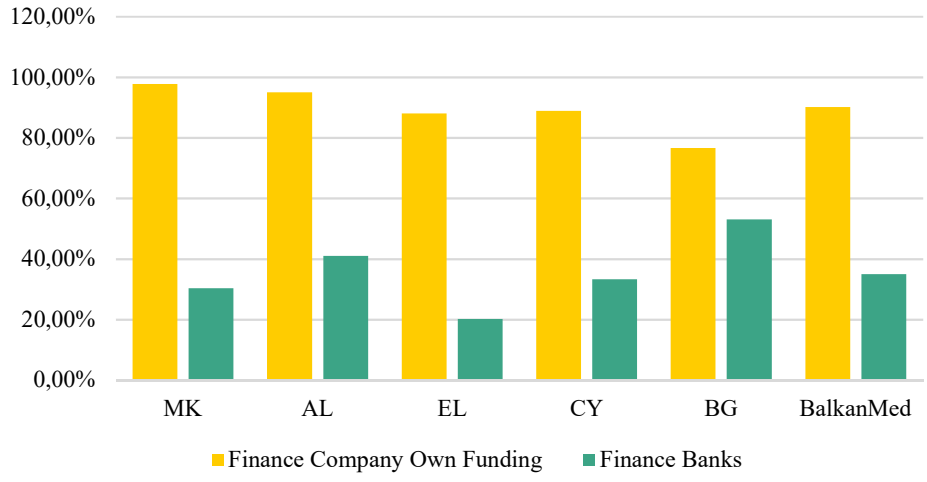
Figure 4.11. Innovations and Decision Making



4.4. Financing Innovations

In general the access to finance is problematic for SMEs. When it comes to innovation activities it can be a major challenge. Survey findings imply that overwhelming percentage of SMEs in the Balkan Mediterranean area, finance the innovation activities through the use of company's own funds- almost three times more than financing from the Banks – Figure 4.12a. These findings are correlated with the country of operations. SMEs from non-EU member countries (FYROM and Albania) depend more on their own funds compared to the SMEs from the EU member countries

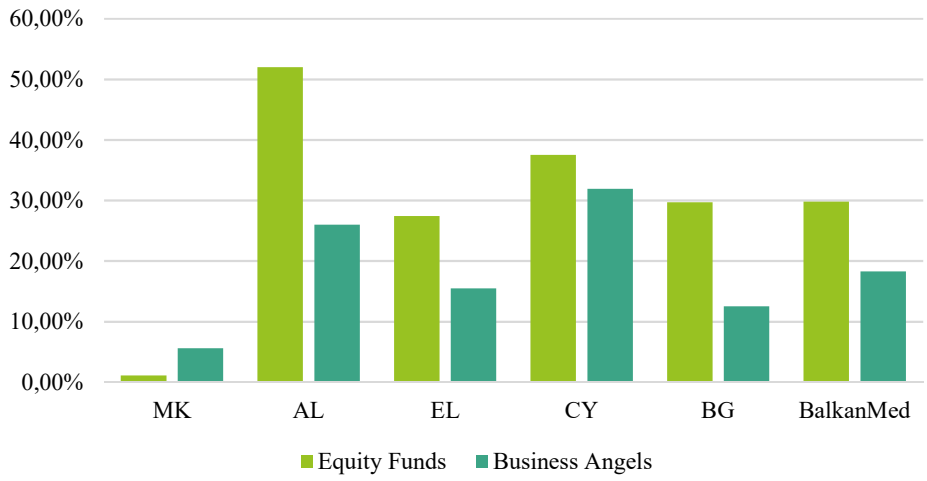
Figure 4.12a. Own Funds vs. Bank Financing



Further analysis indicates that SMEs operating in the Balkan Mediterranean area less frequently use equity financing (29%) and business angels (18%) – Figure 4.12b. These findings are correlated with the country of operations. The non-EU member, former Yugoslav

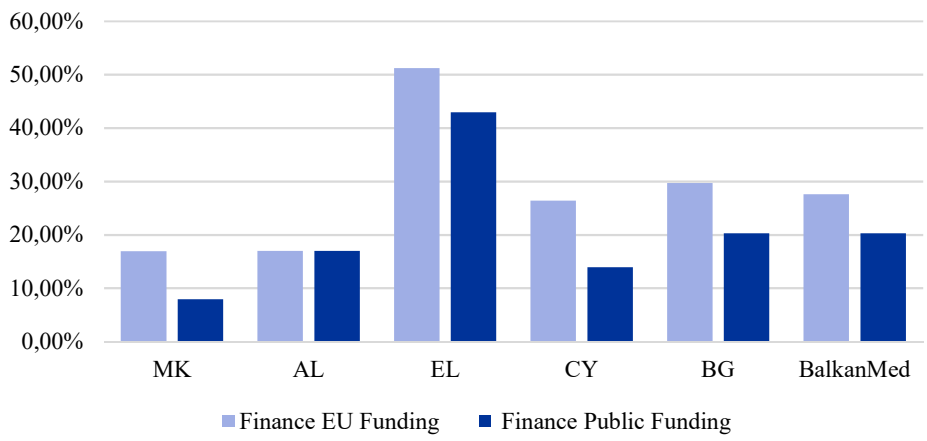
republic of Macedonia has very poor performance in this area, mainly due to the pending legislation for the business angels and the poor presence of equity funds in the country.

Figure 4.12b.Equity Funds vs. Business Angels



SMEs in the Balkan Mediterranean area as well use public funding (20%) and EU funding (27.6%) for their innovation activities – Figure 4.12c. These findings are country correlated. SMEs operating in the non-EU member countries (FYROM and Albania) indicated a lower percentage in the use of these finances for their innovation activities.

Figure 4.12c. EU Finding vs. Other Public Funding



5. Innovativeness

As a term Innovativeness is different from innovation. Many times they are mistaken, but the terms differ. Innovativeness is described as "the tendency for an enterprise to adopt innovations" (Damanpour, 1991; Garcia & Calantone, 2002). It answers the question: Why are some companies more innovative than others?

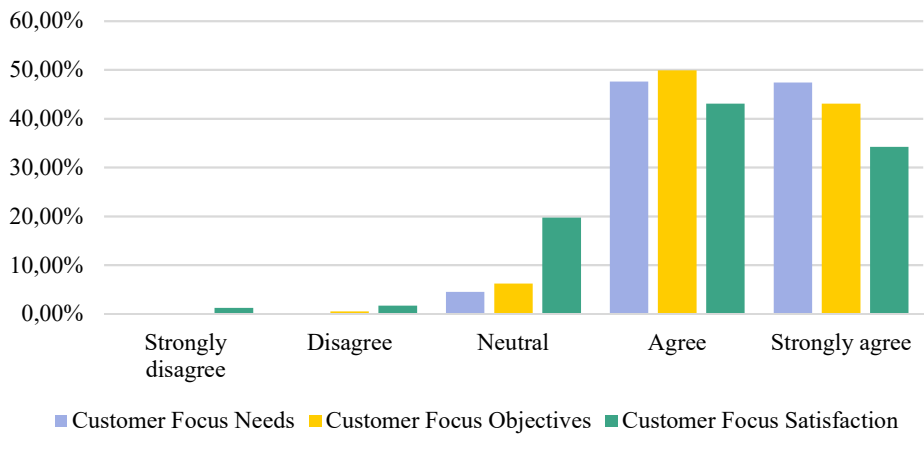
Three antecedents of innovativeness can positively influence this tendency to innovate: (1) market orientation, (2) learning orientation, and (3) entrepreneurial orientation (Hult et al., 2004). Market orientation is related to the enterprises' behavior towards market intelligence, learning orientation is related to development of new knowledge in the enterprise, and entrepreneurial orientation is related to the bold activities and tolerance to risks in order to open new market (Hult et al., 2004). For the purpose of Innoplatform the approach will focus on seven specific components:

1. Customer orientation
2. Competitor orientation
3. Commitment to learning
4. Shared vision
5. Open-Mindedness
6. Entrepreneurial orientation

As recommended by theory, these dimensions are measured through the use of three indicators per each index measured on a Likert scale of 5 (strongly disagree- strongly agree).

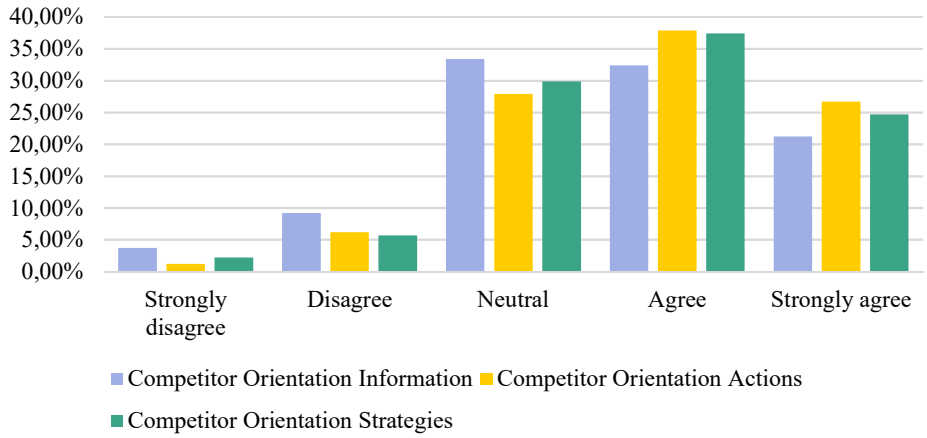
The results on the dimension of *Customer orientation* indicate strong customer focus on all three elements of the same: meeting customer needs, setting clear customer objectives, and measuring customer satisfaction (agree and strongly agree) – Figure 4.13a. The findings however are country correlated and imply that SMEs from the non-EU member countries showed higher values of agreement.

Figure 4.13a. Inovativeness: Customer Orientation

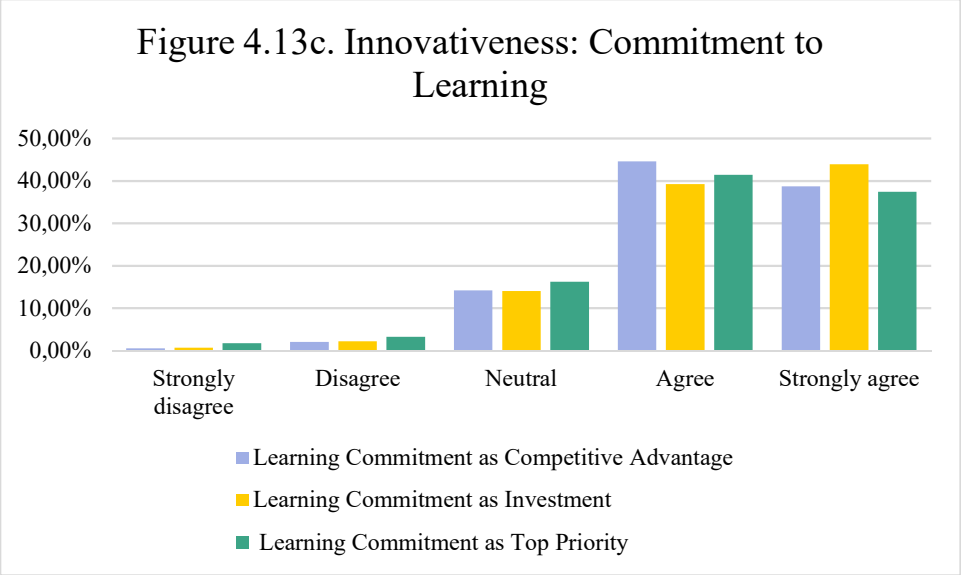


The results on the dimension of *Competitor orientation* indicate strong competitor orientation on all three elements of the same: (1) sharing competitor information, (2) responding to competitor actions, and (3) sharing information on competitor's strategies (agree and strongly agree) – Figure 4.13b. The findings however are Country correlated, and imply that SMEs from the non-EU member countries indicated higher values of agreement.

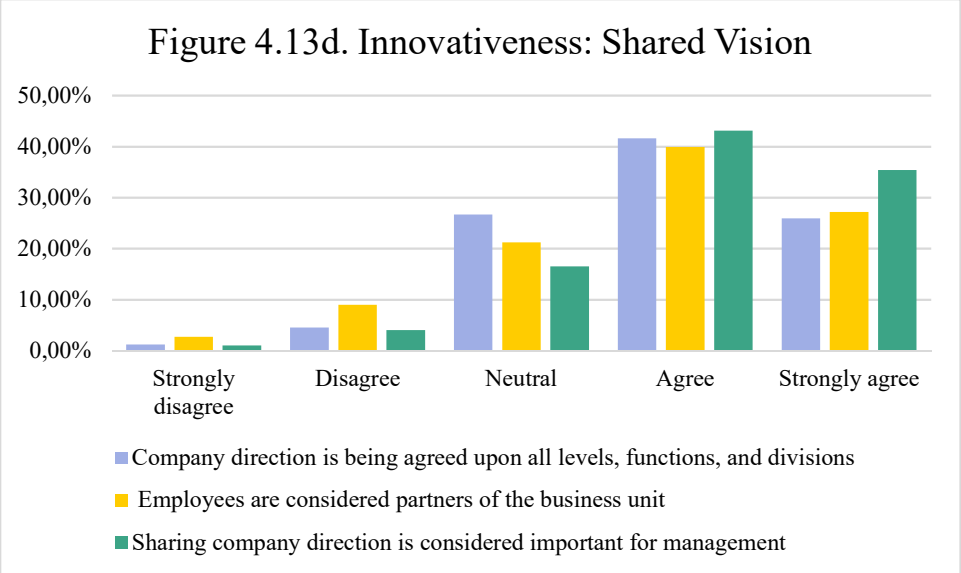
Figure 4.13b. Innovativeness: Competitor Orientation



The results on the dimension of *Commitment to Learning* indicate strong manager's commitment to learning in all three elements of the same: (1) Learning commitment as a Competitive advantage, (2) Learning Commitment as an Investment and (3) Learning commitment as a Top Priority (agree and strongly agree) – Figure 4.13c. The findings however are country correlated, and imply that SMEs from the non-EU member countries indicated higher values of agreement.

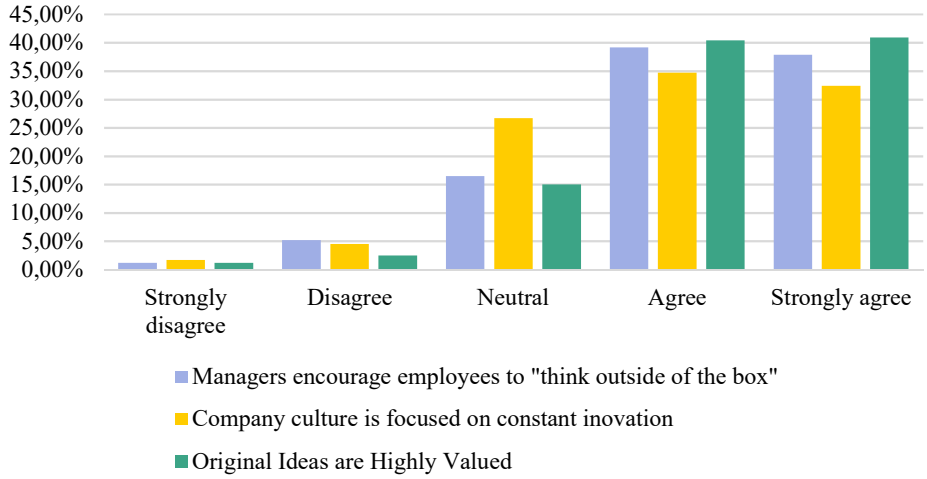


The results on the dimension of *Shared Vision* indicate strong commitment to sharing company's vision and mission in all three elements of the same (agree and strongly agree) – Figure 4.13d. The findings however are country correlated, and imply that SMEs from the non-EU member countries indicated higher values of agreement.



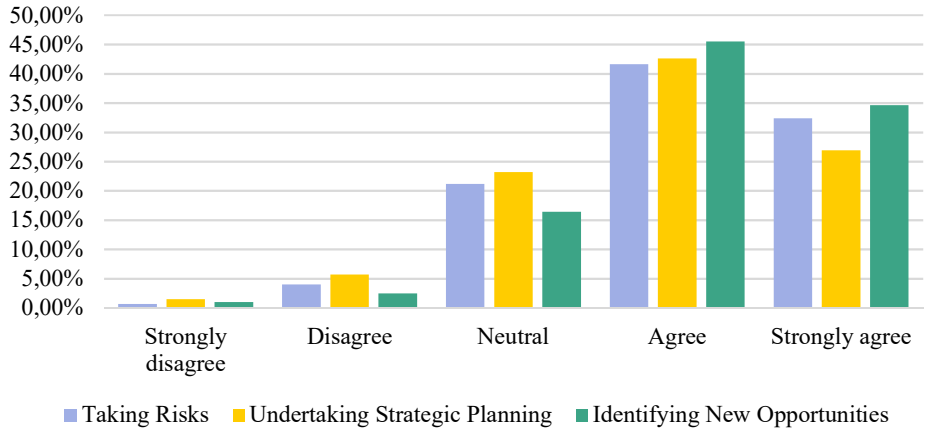
The results on the dimension of *Open Mindedness* indicate strong open mindedness culture in all three elements of the same: 1. Encouraging employees to "think outside of the box", (2) Focus on Constant Innovations, and (3) High valorization of individual ideas (agree and strongly agree) – Figure 4.13e. The findings however are country correlated, and imply that SMEs from the non-EU member countries indicated higher values of agreement.

Figure 4.13e. Innovativeness: Open-Mindedness



The results on the dimension of *Entrepreneurial Orientation* indicate strong commitment to sharing company's vision and mission in all three elements of the same (agree and strongly agree) – Figure 4.13f. The findings however are country correlated, and imply that SMEs from the non-EU member countries indicated higher values of agreement.

Figure 4.13f. Innovativeness: Entrepreneurial Orientation



The descriptive statistics in numbers is presented in Table 4.7. Out of all variables, the dimension *Competitor Orientation* has the lowest means on all three variables, which implies lowest level of agreement among the respondents. It also has the highest standard deviation, which means there have been large discrepancies in the answer of respondents.

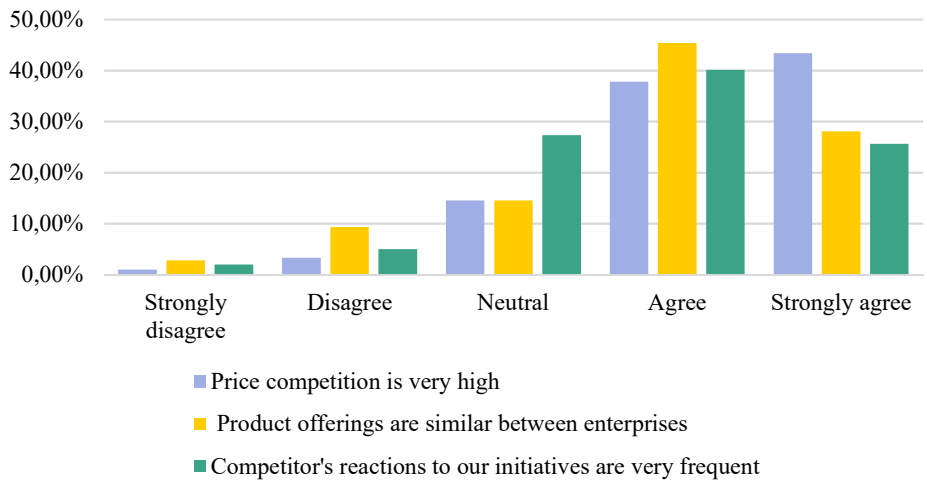
Table 4. 7. Descriptive Statistics on Innovativeness (variables)					
Descriptive Statistics					
	N	**Min.**	**Max.**	**Mean**	**Std. Deviation**
We understand customer needs	401	1	5	4.42	0.615
We have clear customer satisfaction objectives	401	1	5	4.35	0.643
We measure customer satisfaction	401	1	5	4.07	0.847
Is a place where salespeople share competitor information	401	1	5	3.58	1.039
Responds rapidly to competitors' actions	401	1	5	3.83	0.938
Is a place where managers discuss competitors' strategies	401	1	5	3.77	0.962
Views individual's ability to learn as a key competitive advantage	401	1	5	4.19	0.787
Is a place where employee learning is seen as an investment instead of cost	401	1	5	4.23	0.827
Is a place where employee learning is a top priority	401	1	5	4.09	0.903
Company direction is being agreed upon all levels, functions, and divisions	401	1	5	3.87	0.895
Employees are considered partners of the business unit	401	1	5	3.8	1.025
Sharing company direction is considered important for management	401	1	5	4.08	0.874
Managers encourage employees to "think outside of the box"	401	1	5	4.07	0.929
Company culture is focused on constant innovation	401	1	5	3.92	0.961
Original Ideas are Highly Valued	401	1	5	4.17	0.862
Taking Risks	401	1	5	4.01	0.875
Undertaking Strategic Planning	401	1	5	3.88	0.923
Identifying New Opportunities	401	1	5	4.1	0.833
Valid N (listwise)	401				

6. External Turbulences

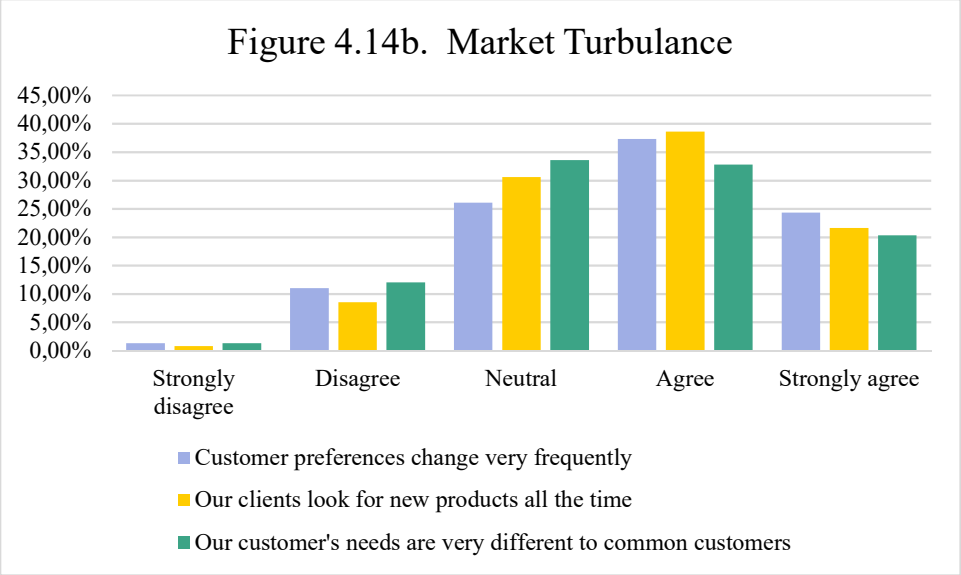
The external determinant of innovation, which is the business environment, can be further broken down into (1) *customers, (2) competitors, (3) government, and (4) market structure* (Teece, 1996). It is an important factor which can either push, or pull enterprises into innovations. In the concerned case as the SMEs operate in the Balkan Mediterranean area where all countries are either EU, or EU applicant countries, the dimension of regulation is not explored. This decision is further supported by the fact that all five countries score well on the Doing Business reports of the World Bank. The dimension on the external linkages is already explored with the cooperation activities od innovators.

The results on the dimension of *Competitive Turbulence* describe a turbulent competitive environment in all three elements of the same (agree and strongly agree) – Figure 4.14a. The findings are not country correlated, and imply that SMEs from different countries of the BM area do not differ in their answers.

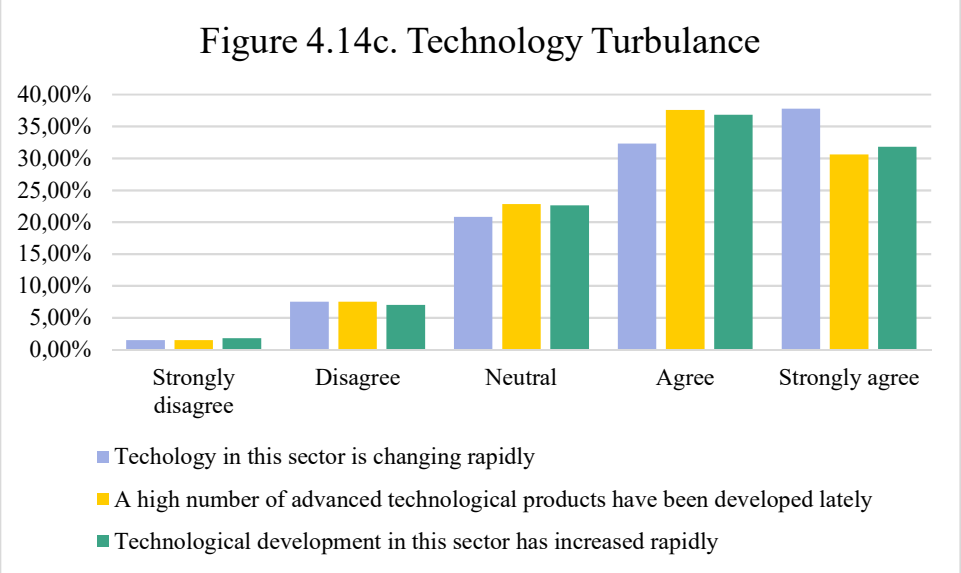
Figure 4.14a. Competitive Turbulence



The results on the dimension of Market Turbulence describe a turbulent market environment in all three elements of the same (agree and strongly agree) – Figure 4.14b. These findings however are lower compared to the dimension of Competitive Turbulence. The findings are not country correlated, and imply that SMEs from different countries of the BM area do not differ in their answers.



The results on the dimension of *Technology Turbulence* describe a turbulent technological environment in all three elements of the same (agree and strongly agree) – Figure 4.14c. These findings however have lower values compared to the dimension of Competitive Turbulence. The findings are not country correlated, and imply that SMEs from different countries of the BM area do not differ in their answers.



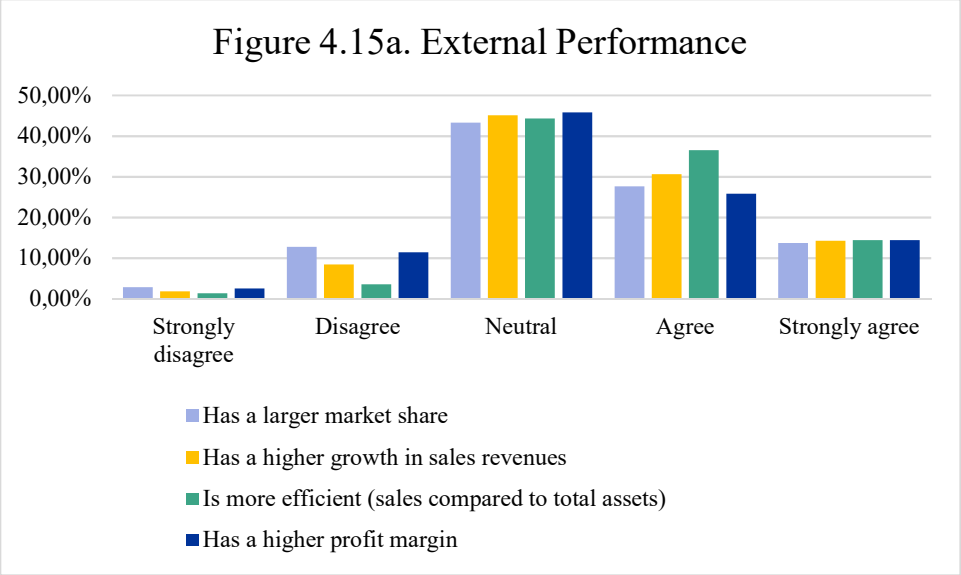
The descriptive statistics in numbers is presented in Table 4.8. Out of all variables, the dimension *Market Turbulence* has the lowest means on all three dimensions, which implies lowest level of agreement among the respondents.

Table 4. 8. Descriptive Statistics on External Turbulence (variables)					
Descriptive Statistics					
	N	**Min.**	**Max.**	**Mean**	**Std. Deviation**
Price competition is very high	401	1	5	4.19	0.874
Product offerings are similar between enterprises	401	1	5	3.87	1.015
Competitor's reactions to our initiatives are very frequent	401	1	5	3.82	0.938
Customer preferences change very frequently	401	1	5	3.72	0.992
Our clients look for new products all the time	401	1	5	3.72	0.923
Our customer's needs are very different to common customers	401	1	5	3.59	0.983
Technology in this sector is changing rapidly	401	1	5	3.97	1.012
A high number of advanced technological products have been developed lately	401	1	5	3.88	0.979
Technological development in this sector has increased rapidly	401	1	5	3.9	0.987
Valid N (listwise)	401				

7. SME's Performance

Organizational performance is often related to the achievement of organizational objectives and assessed on whether, or not, the organization met its objectives (Armstrong and Bach 2005). According to available literature the organizational performance can be grouped into two broad categories of variable which are: 1) External, and 2) Internal. The first group reflects the business results as are the profitability, market participation, reputation and customer satisfaction, while the second group indicates how the organization works, as for example it has improved, processes, innovations, more satisfied employees and similar.

In the area of external performance factors, SMEs answers on whether they are better compared to competition on annual level are presented in Figure 4.15a. As it can be seen from the graph, majority of SMEs do not believe that they outperform the competition. The descriptive analysis on the mean values is provided in Table 4.9. The findings do not depend on the country of operations of the SME.



In the area of *Internal Process Performance* factors, SMEs answers on whether they are better compared to competition on annual level are presented in Figure 4.15a. As it can be seen from the graph, majority of SMEs believe that they outperform the competition (agree and strongly agree). The descriptive analysis on the mean values is provided in Table 4.9. The findings do not depend on the country of operations of the SME.

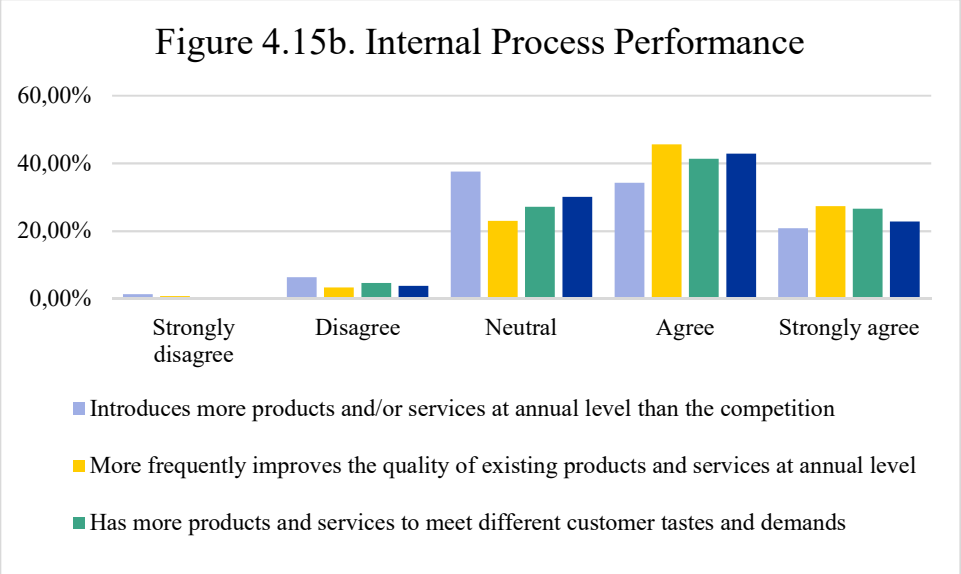


Table 4. 9. Descriptive Statistics on Organizational Performance (variables)					
Descriptive Statistics					
	N	**Min.**	**Max.**	**Mean**	**Std. Deviation**
Introduces more products and/or services at annual level than the competition	401	1	5	3.67	0.917
More frequently improves the quality of existing products and services at annual level	401	1	5	3.95	0.839
Has more products and services to meet different customer tastes and demands	401	1	5	3.89	0.868
Is faster in changing the priority products and services to meet the changing market demand	401	1	5	3.84	0.837
Has a higher profit margin	401	1	5	3.38	0.952
Has a larger market share	401	1	5	3.37	0.964
Has a higher growth in sales revenues	401	1	5	3.47	0.899
Is more efficient (sales compared to total assets)	401	1	5	3.59	0.824
Valid N (listwise)	401				

8. Factors Influencing Innovators and Performance in the BalkanMed

After a comprehensive analysis on the descriptive findings of SME's survey, it is important to explain how different variables interact. In particular, it is very important to explore the following questions:

1. What factors influence different types of innovation in SMEs in the Balkan Mediterranean area?
2. Are different types of innovation affecting the performance of SMEs and in what way?

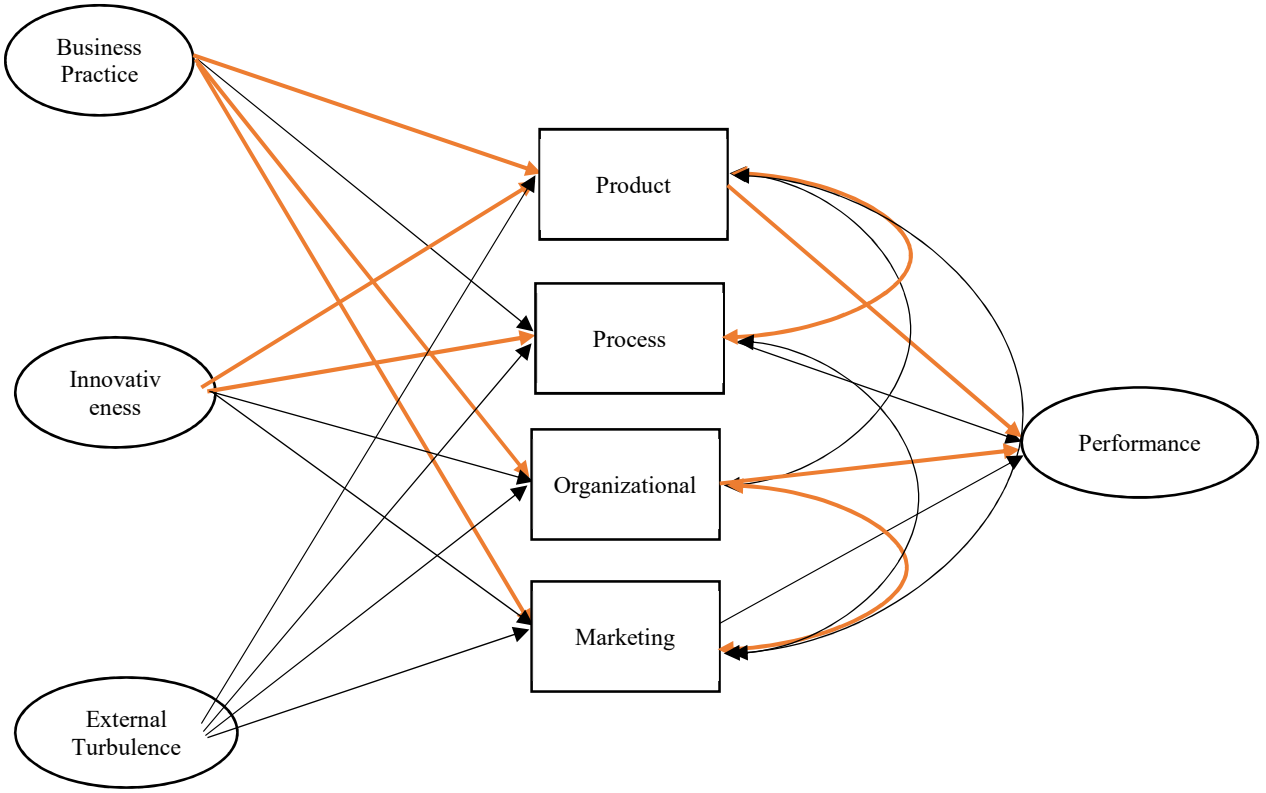
For conducting the analysis, we use AMOS SPSS modelling software, where we define all observable variables, accompanied with unobservable latent variables of first and second order. We use Structural Equation Modelling (SEM). The Initial model is presented in Figure 4.19. The second SEM2 model is provided in Figure 4.20, where the focus is placed on the Business Model Innovators

The first Model (SEM1), covers all four Innovator types and explores the impact of internal and external context on their innovation activities and performance. Findings emphasise:

- Business Practice significantly affects Organizational and Marketing Innovators, but it has no significant impact on the Product/service and Process Innovators. The finding is further supported with the influence of each of the business practice elements on the Innovator Type provided in the section 4.
- On the other hand, Innovativeness significantly affects Product and Process Innovators.
- External Turbulence does not affect any type of Innovation activity of the SMEs in the Balkan Med area.
- Product and Organizational Innovators impact the Organizational performance of SMEs, and make the enterprises more competitive.
- The use of the controls indicates the following:
    - The findings depend on the context of the country in which the SME operates. Country affects all four types of Innovators i.e. Innovation activities. It is because SMEs from the non-EU member countries indicated higher levels of innovation activities compared to the ones from the EU countries. The findings for the former Yugoslav Republic of Macedonia, Greece, Bulgaria and Cyprus reflect CIS findings in this regard.
    - The findings imply that the innovation activities of the product and process innovators depend on the Enterprise type (1=micro, 2=small, 3=medium). The larger the enterprise the more intensive its innovation activities among the product and process innovators. The findings for the former Yugoslav Republic of Macedonia, Greece, Bulgaria and Cyprus reflect CIS findings in this regard.
    - Whether the SME belongs to an enterprise group or not does not affect the findings;
    - In terms of SME demographics, Family owned businesses do not differ in their innovation activities, while women owned or managed enterprises impact the organisational innovations.

- Product and Process Innovators are highly correlated implying that Product/service innovations are usually accompanied with process innovations to accommodate the processes of the organisation for the launch of the new products/services;
- Product is significantly correlated with Marketing innovations, although the correlations is weak to moderate implying that product innovations are usually accompanied with innovations in the marketing strategies of the enterprise;
- Marketing is significantly correlated with Organizational Innovations, implying that changes in the marketing strategies and approach of the company covering product design, placement, and promotion and pricing strategies, are done in parallel with organizational changes of the structure and work of the enterprises.

Figure 4.16. Model (SEM 1)



			Estimate	S.E.	C.R.	P	Label
ProductService	<---	BusinessPractice	0.098	0.059	1.648	0.099	par_32
Process_Innovation	<---	BusinessPractice	0.017	0.059	0.288	0.773	par_33
Organizational_innovation	<---	BusinessPractice	0.23	0.057	4.061	***	par_34
Marketing_Innovation	<---	BusinessPractice	0.154	0.056	2.768	0.006	par_35
ProductService	<---	INNOVATIVENESS	0.169	0.074	2.269	0.023	par_36
Process_Innovation	<---	INNOVATIVENESS	0.19	0.075	2.537	0.011	par_37
Organizational_innovation	<---	INNOVATIVENESS	0.034	0.07	0.484	0.628	par_38
Marketing_Innovation	<---	INNOVATIVENESS	0.003	0.069	0.039	0.969	par_39
Marketing_Innovation	<---	External_Turbulance	0.09	0.061	1.479	0.139	par_40
Organizational_innovation	<---	External_Turbulance	0.078	0.062	1.27	0.204	par_41
Process_Innovation	<---	External_Turbulance	0.047	0.065	0.73	0.465	par_42
ProductService	<---	External_Turbulance	0.059	0.065	0.915	0.36	par_43
Marketing_Innovation	<---	Enterprise Type	0.01	0.03	0.33	0.741	par_61
Organizational_innovation	<---	Enterprise Type	0.046	0.031	1.502	0.133	par_62
Process_Innovation	<---	Enterprise Type	0.073	0.033	2.243	0.025	par_63
ProductService	<---	Enterprise Type	0.085	0.032	2.615	0.009	par_64
ProductService	<---	Enterprise_Groupation	0.098	0.063	1.558	0.119	par_65
Process_Innovation	<---	Enterprise_Groupation	0.092	0.063	1.457	0.145	par_66
Organizational_innovation	<---	Enterprise_Groupation	0.042	0.06	0.709	0.478	par_67
Marketing_Innovation	<---	Enterprise_Groupation	0.004	0.059	0.063	0.95	par_68
Marketing_Innovation	<---	Country	-0.041	0.017	-2.43	0.015	par_69
Organizational_innovation	<---	Country	-0.051	0.017	-3.03	0.002	par_70
Process_Innovation	<---	Country	-0.062	0.018	-3.423	***	par_71
ProductService	<---	Country	-0.032	0.018	-1.813	0.07	par_72
Marketing_Innovation	<---	Enterprise_Owner_Women	0.065	0.043	1.488	0.137	par_76
Organizational_innovation	<---	Enterprise_Owner_Women	0.095	0.044	2.164	0.03	par_77
ProductService	<---	Enterprise_Owner_Women	0.054	0.046	1.17	0.242	par_79
Process_Innovation	<---	Enterprise_Owner_Women	0.005	0.047	0.11	0.912	par_80
Perfromance	<---	ProductService	0.192	0.076	2.53	0.011	par_57
Perfromance	<---	Process_Innovation	0.072	0.068	1.055	0.292	par_58
Perfromance	<---	Organizational_innovation	0.164	0.064	2.586	0.01	par_59

Correlations: (Group number 1 - Default model)

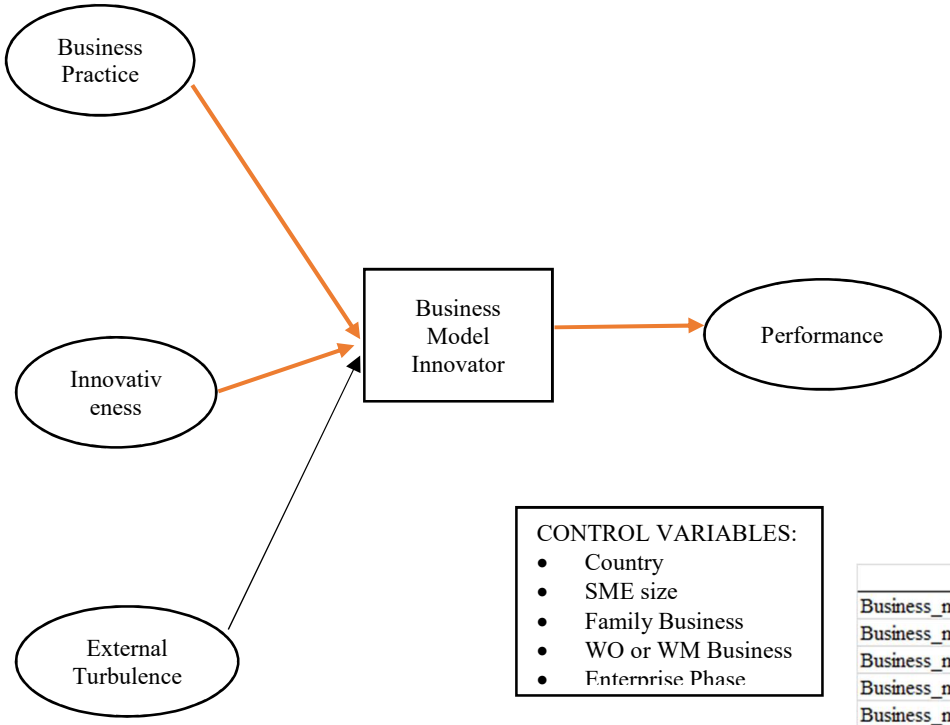
			Estimate
BusinessPractice	<-->	INNOVATIVENESS	0.664
External_Turbulance	<-->	INNOVATIVENESS	0.511
External_Turbulance	<-->	BusinessPractice	0.375
Enterprise_Owner_Wome	<-->	INNOVATIVENESS	0.018
Enterprise_Owner_Wome	<-->	BusinessPractice	0.116
Enterprise_Owner_Wome	<-->	External_Turbulance	-0.017
Enterprise_Type	<-->	INNOVATIVENESS	0.003
Enterprise_Groupation	<-->	INNOVATIVENESS	0.05
Enterprise_Type	<-->	BusinessPractice	0.191
Enterprise_Groupation	<-->	BusinessPractice	0.075
Enterprise_Type	<-->	External_Turbulance	0.062
Enterprise_Groupation	<-->	External_Turbulance	0.125
Enterprise_Type	<-->	Enterprise_Groupation	0.194
Country	<-->	INNOVATIVENESS	-0.221
Country	<-->	BusinessPractice	-0.007
Country	<-->	External_Turbulance	0.037
Enterprise_Type	<-->	Country	-0.025
Enterprise_Groupation	<-->	Country	-0.012
Country	<-->	Enterprise_Owner_Women	0.04
Enterprise_Type	<-->	Enterprise_Owner_Women	0.099
Enterprise_Groupation	<-->	Enterprise_Owner_Women	0.059
Product/service	<-->	Process	0.646
Product/service	<-->	Organizational	0.245
Product/service	<-->	Marketing	0.314
Process	<-->	Organizational	0.187
Process	<-->	Marketing	0.23
Organizational	<-->	Marketing	0.377

The second Model (SEM2), covers the context of Business Model Innovators and explores the impact of internal and external context on their innovation activities and performance.

Findings emphasise:

- Business Practice and Innovativeness (the propensity to innovate) significantly and positively affects Business model Innovators.
- External Turbulence does not affect the innovation activities of the Business Model Innovators;
- Business Model Innovators significantly and positively affect SME performance compared to its competition;
- The use of the controls indicates the following:
    - The country of operations does not change the findings. Business Model Innovators activities do not differ based on the country of SME's operations;
    - The membership to enterprise group does not change the findings. Business Model Innovators activities do not differ based on whether the SME belongs to an enterprise group or not;
    - In terms of SME demographics, Family owned businesses and/or women owned or managed enterprises do not differ in their innovation activities compared to the other SMEs;
    - SME size, or Enterprise type positively affects the performance of SMEs implying that large SMEs, perform better compared to competition;

Figure 4.17. Model 2 (SEM2) Business Model Innovators



			Estimate	S.E.	C.R.	P	Label
Business_model	<---	BusinessPractice	0.135	0.06	2.259	0.024	par_39
Business_model	<---	INNOVATIVENESS	0.187	0.074	2.512	0.012	par_40
Business_model	<---	External_Turbulance	0.088	0.066	1.338	0.181	par_41
Business_model	<---	Country	-0.017	0.018	-0.932	0.351	par_43
Business_model	<---	Enetrprise_Phase	-0.027	0.032	-0.843	0.399	par_48
Business_model	<---	SME Size	0.077	0.033	2.314	0.021	par_50
Business_model	<---	Enterprise_Management_Family	0.024	0.047	0.506	0.613	par_52
Business_model	<---	Enterprise_Owner_Women	0.08	0.048	1.683	0.092	par_54
Performance	<---	Business_model	0.381	0.067	5.652	***	par_42
Performance	<---	Country	0.029	0.023	1.255	0.21	par_44
Performance	<---	Enetrprise_Phase	-0.12	0.044	-2.707	0.007	par_49
Performance	<---	SME Size	0.132	0.044	2.975	0.003	par_51
Performance	<---	Enterprise_Management_Family	0.092	0.064	1.434	0.151	par_53
Performance	<---	Enterprise_Owner_Women	-0.05	0.065	-0.761	0.446	par_55

9. Conclusions

In line with the purpose of the research, to map and explore the context and business practice of SME Innovators in the Balkan Mediterranean area, we can conclude the following:

Product/Service Innovators

- ***61% of the surveyed SMEs in the Balkan Mediterranean area introduced either a new product or a new service in the past 12 months*** (i.e. 2017). There are significant differences among SMEs from the participating countries; SMEs from non-EU member countries, Albania and FYR of Macedonia have higher values than the BalkanMed average. There are significant differences among the product/service innovators depending on their size. Micro enterprises reported higher values than the BalkanMed average.
- Out of the SMEs which introduced a new product, or service in the past 12 months, in average 72% introduced new products (goods) while 67% introduced new services. There are no significant differences among SMEs from different countries.
- In almost half of the cases, the new products or services, were new to the market (50%), or new to the enterprise (46%). Only 29% of the SMEs have introduced products/services which were both, new to the markets and to the enterprise.
- **Product/Service Innovators reported significantly higher performance compared to their competition.**
- The Business Practice of Product/Service innovators is as follows:
    - their strategic planning, setting vision, mission and strategic objectives, accompanied with good functional planning (marketing, operations, finance HR) and the use of environmental standards and Enterprise Architecture positively affects their innovation activities and differentiates Product/Service innovators from the non-innovators.
    - Only 10% of the Product/service Innovators use business modelling ontologies.
    - In terms of the use of other tools and practices in modelling their businesses, Product/Service innovators are correlated with the use of Other Business Tools, identified as SAP, SPSS, Autodesk, In-house software, Case studies, Smartsheet. The practice positively affects the development and launch of new products and services.
    - The use of strategic top management approach in the decision making on innovations significantly and positively affects Product/Service innovation activities;
    - In terms of financing practice, Product/Service Innovators do not differ from the other Enterprises. Innovations are financed predominantly by own funds in the EU-applicant countries, followed by Bank credits, Equity funding and EU funding.

- Innovativeness positively affects the Product/Service innovation activities in enterprises

Process Innovators

- ***57% of the surveyed SMEs in the Balkan Mediterranean area introduced a new process in the past 12 months*** (i.e. 2017). Out of the SMEs which introduced a new process, in average 75% introduced new production process method, while 79% introduced new process supporting activity and 59% introduced new process distribution method. There are significant differences among SMEs from the participating countries - SMEs from non-EU member countries, Albania and former Yugoslav Republic of Macedonia indicated more intensive innovation activities compared to the BalkanMed average.
- Process innovations do not generate better organizational performance. It implies that process innovations in the BalkanMed area are undertaken either as a required activity supporting the introduction of new products, which explains the high correlation among the items, or as a necessity to improve efficiency because of competitive pressures.
- The Business Practice of Process innovators is as follows:
    - Strategic planning accompanied with the use of innovation standards/systems and Enterprise Architecture positively affects their innovation activities and differentiates Process innovators from the non-innovators.
    - Only 10% of the Process Innovators use business modelling ontologies.
    - In terms of the use of other tools and practices in modelling their businesses, Process innovators are correlated with the use of Computer-based Tools. The practice positively affects the development and launch of new processes in the enterprise.
    - The existence of a strategic approach in introducing innovation accompanied with the other elements of the implementation process of innovations (trial and based, internal teams and consultants) positively affects Process innovation activities;
    - In terms of financing practice, Process Innovators do not differ from the other Innovators. Innovations are financed predominantly by own funds in the all countries especially the EU-applicant countries, followed by Bank credits, Equity funding and EU funding.
- Innovativeness positively affects the Process innovation activities in enterprises.
- Larger enterprises reported higher Process innovation activities.

Organizational Innovators

- In average 52% of the surveyed SMEs in the Balkan Mediterranean area introduced an organizational innovation in the past 12 months (i.e. 2017), either a new business practice, a new workplace organization, or new methods for establishing external relations. There are significant differences among the different countries; the

correlation however although significant, is weak. SMEs from non-EU member countries, Albania and former Yugoslav Republic of Macedonia indicated more intensive innovation activities compared to the BalkanMed average.

- **Organizational innovations result into higher Performance.**
- **The Business Practice of Organizational innovators significantly affects their innovation activities. This is of no surprise because changes in the business practices are an organizational innovation.**
    - The use of all dimensions of the Business practice (strategic planning and management, standards and Enterprise Architectures) positively affect organizational innovation.
    - Only 10% of the Organizational Innovators use business modelling ontologies.
    - In terms of the use of other tools and practices in modelling their businesses, Organizational innovators use all tools: Computer-based, Paper based tools, Spreadsheets and Other tools. The practice positively affects the development and launch of new organizational innovations in the enterprise.
    - The existence of a strategic approach in introducing innovation accompanied with the other elements of the implementation process of innovations (trial and based, internal teams and consultants) positively affects Organizational innovation activities;
    - In terms of financing, Organizational Innovators do not differ from the other Innovators. Innovations are financed predominantly by own funds in all countries especially the EU-applicant countries, followed by Bank credits, Equity funding, and EU funding.
- Women owned or managed enterprises reported significantly higher organizational innovation activities.

Marketing Innovators

- In average, 48% of the surveyed SMEs in the Balkan Mediterranean area introduced a marketing innovation in the past 12 months (i.e. 2017) Out of the SMEs which introduced a new marketing innovation in the past 12 months, in average 55% introduced new design/packaging, 59% introduced new product promotion, 81% introduced New Product placement and 59% introduced new pricing method. There are significant differences between the BM countries when it comes to the introduction of a new design of the product packing and a new product promotion; however, there are differences in the case of a new product placement and a new pricing method.SMEs from non-EU member countries, Albania and former Yugoslav Republic of Macedonia indicated more intensive innovation activities compared to the BalkanMed average.

- Findings suggest that Marketing innovations do not generate better organizational performance. The correlation between Marketing innovations and Product/Service Innovations is significant along with the correlation between Marketing and Organizational Innovations. It implies that SMEs undertake Marketing innovations in the BalkanMed area together with the product launches, and/or specific changes in how their organizations work.
- **The Business Practice of Marketing innovators affects their innovation activities.**
    - Strategic planning accompanied with functional planning, the use of innovation standards/systems, and the existence of Enterprise Architecture positively affects their innovation activities and differentiates Marketing innovators from the non-innovators.
    - Only 10% of Marketing Innovators use business modelling ontologies.
    - In terms of the use of other tools and practices in modelling their businesses, Marketing innovators are correlated with the use of Computer-based tools and Spreadsheets. The practice positively affects the development and launch of new marketing innovations in the enterprise.
    - The existence of a strategic approach in introducing innovation accompanied with the other elements of the implementation process of innovations (trial and based, internal teams and consultants) positively affects Marketing innovation activities;
    - In terms of financing practice, Marketing Innovators do not differ from the other Innovators. Innovations are financed predominantly by own funds in all countries especially the EU-applicant countries, followed by Bank credits, Equity funding and EU funding.

Business Model Innovators

- In average 42.5% of the surveyed SMEs in the Balkan Mediterranean can be classified as Business model innovators. There are no statistically significant differences between the BM countries; however, SMEs from Albania reported innovations higher than the BM averages especially among the business model innovations of the micro and small enterprises. Medium sized enterprises with higher than 50 employees have higher percentage of business model innovations compared to the other enterprise types.
- The mapping of Business Model innovators according to the classification indicates prevalence of the **Small scale business model innovators in all countries of the BalkanMed area (71.73% of all BM Innovators). All-round goods innovators** are the second most frequent type of a BM innovator (18.85% of all BM Innovators).
- **Business Model innovations result into higher Enterprise Performance compared to the competition.**
- **The Business Practice of BM innovators affects their innovation activities.**

- The use of all dimensions of the Business practice (strategic planning and management, standards and Enterprise Architectures) positively affect organizational innovation.
- 11.5% of Business Model Innovators use business modelling ontologies (highest percentage among the Innovators).
- In terms of the use of other tools and practices in modelling their businesses, **BM innovators use all tools**: Computer-based, Paper based, Spreadsheets and Other tools. The practice positively affects the development and launch of and implementation of BM innovation in the enterprise.
- The existence of a strategic approach in introducing innovation accompanied with the other elements of the implementation process of innovations (trial and based, internal teams and consultants) positively affects BM innovation activities;
- In terms of financing practice, BM Innovators do not differ from the other Innovators. Innovations are financed predominantly by own funds in all countries especially the EU-applicant countries, followed by Bank credits, Equity funding and EU funding.

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Appendixes

Appendix 1 – SME's Demographics

Table A1. Structure of Surveyed SMEs						
	MK	AL	EL	CY	BG	BMed
Small-Micro	50.00%	46.90%	71.10%	38.60%	57.10%	52.80%
Small	32.60%	32.70%	24.10%	38.60%	30.20%	31.50%
Medium	17.40%	20.40%	4.80%	22.90%	12.70%	15.80%

Table A2. Structure of Surveyed SMEs						
	MK	AL	EL	CY	BG	BMed
Start up	11.60%	6.10%	15.70%	11.40%	4.80%	10.00%
Growth	34.90%	51.00%	53.00%	41.40%	52.40%	46.50%
Mature	47.70%	37.80%	28.90%	35.70%	39.70%	38.00%
Decline	5.80%	5.10%	2.40%	11.40%	3.20%	5.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

The average age of the SMEs is 12 years, and there are no major differences in this regard among the participating countries.

Figure A1. SME's years of establishment

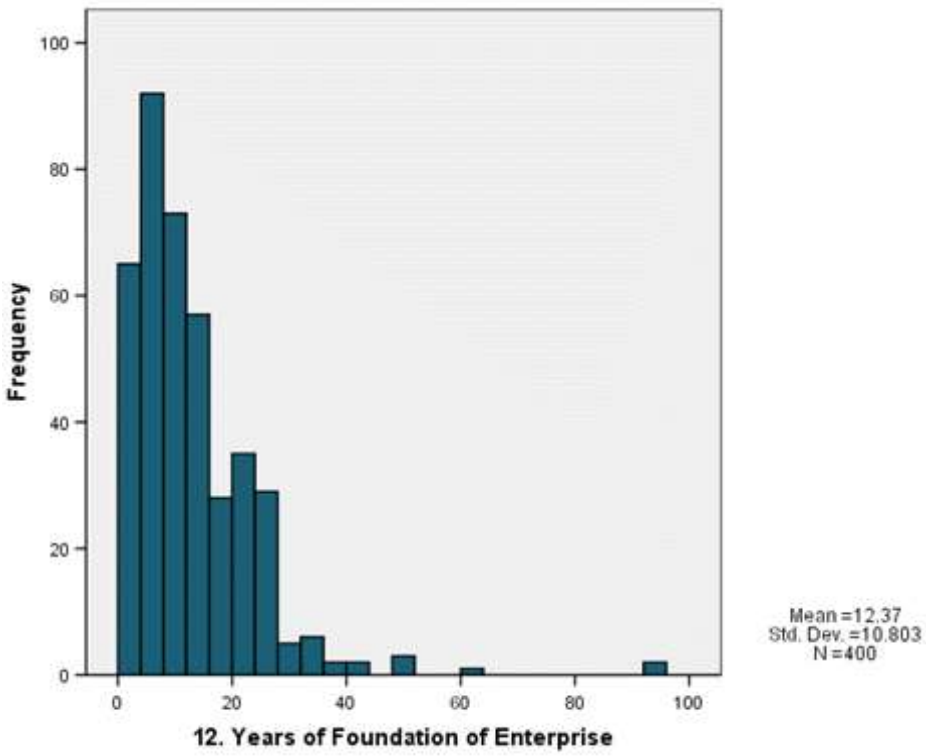
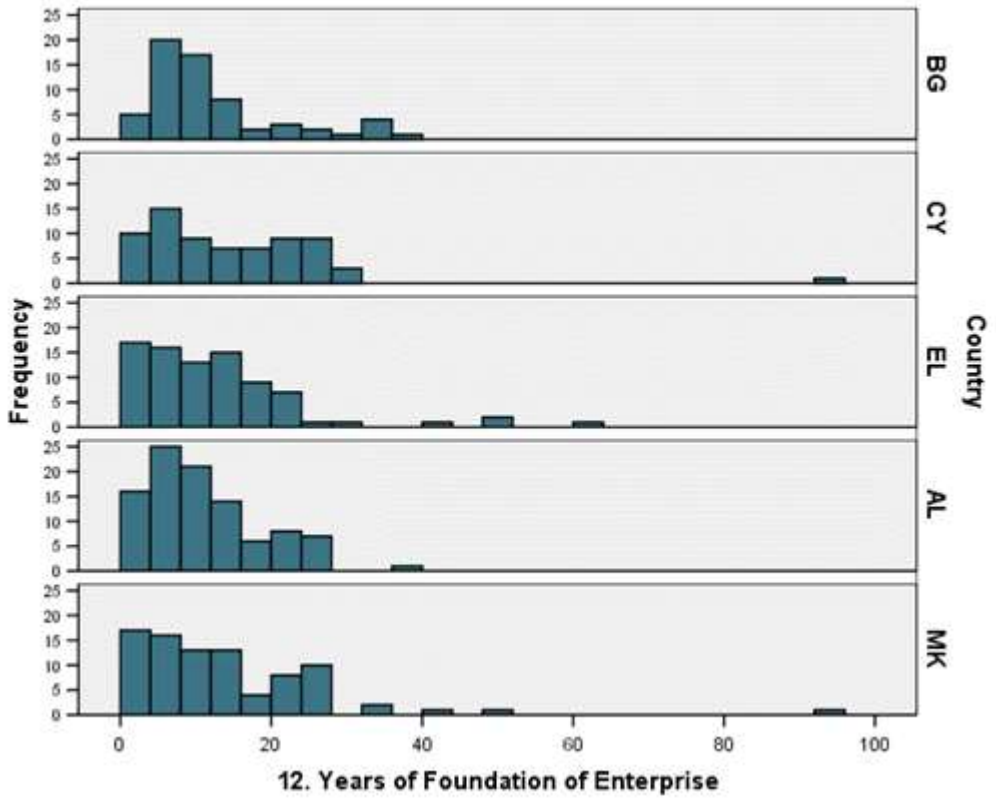


Figure A 2 SME's years of establishment



In average 16% of the surveyed SMEs belong to an enterprise group.

Table A.3. 15. Enterprise Group * Country Crosstabulation						
	Country					
	MK	AL	EL	CY	BG	**Total**
15. Enterprise Group	16.30%	17.30%	12.20%	24.20%	**11.10%**	**16.20%**

Half of the surveyed SMEs are family owned businesses, which is of no surprise for the Balkan Mediterranean Area, while in average 40% of the SMEs are either owned or managed by a Woman.

Table A.4. 17. Enterprise Management Family Crosstabulation						
	Country					
	MK	AL	EL	CY	BG	**Total**
17. Family Owned Business	54.70%	67.30%	40.20%	42.40%	52.40%	**52.40%**

Table A.5. 18. Women Owned or Managed Enterprise * Country Crosstabulation						
	Country					
	MK	AL	EL	CY	BG	**Total**

18. WO or managed SME	39.50%	40.80%	37.80%	47.00%	44.40%	**41.50%**

Surveyed SMEs come from all NACE categories, while the highest number of SMEs operate in primary industries and services: IT and communications, manufacturing and trade – more than 50% of the surveyed enterprises.

Table A.5. NACE Sector	
Agriculture, Forestry and Fishing	2.90%
Mining and Quarrying	1.00%
Manufacturing	13.40%
Electricity, Gas, Steam and Air Conditioning Supply	1.00%
Water Supply; Sewerage, Waste Management and Remediation Activities	0.70%
Construction	8.80%
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	12.60%
Transportation and Storage	3.80%
Accommodation and Food Service Activities	7.40%
Information and Communication	22.90%
Financial and Insurance Activities	2.10%
Real Estate Activities	1.70%
Professional, Scientific and Technical Activities	8.10%
Administrative and Support Service Activities	6.21%
Undeclared	7.20%

Appendix 2. Definition of Concepts and Measurements

We use the following concepts and their definitions for the SMEs – Table 1a.

Table 1a. Definition of Concepts	
Item	**Definition**
SMEs (Small and Medium Enterprises)	SMEs as "enterprises or enterprises that employ a maximum of 250 employees with an annual turnover/annual balance sheet that does not exceed 50 million euro." (European Commission, 2005). In the process, we will make clear distinction of: • Micro enterprises - consists of 10 or fewer employees and have annual turnover/annual balance sheet that does not exceed 2 million euro; • Small enterprises - have 50 or fewer employees and an annual turnover/annual balance sheet of maximum 10 million euro; and • Medium enterprises - have 250 or fewer employees with annual turnover/annual balance sheet that is no more than 50 million euro.
Innovation aka Innovation Type	The EU uses the definitions of innovations coming from the OECD Manual (OECD, 2005): • "A product innovation is the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics." (p. 48). • "A process innovation is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software." (p. 49) • "A marketing innovation is the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing." (p. 49) • " An organizational innovation is the implementation of a new organizational method in the enterprise's business practices, workplace organization or external relations." (p. 51).
Business Model Innovations	BMI have not yet been sufficiently operationalized neither as a separate type of innovation, nor as a combination of other innovation types. We perceive BMI in the InnoPlatform project as changes of all three components of business models, 1) value creation, 2) business systems, and 3) revenue generation. Therefore, the main focus of the research is on the term CHANGE of the business model.

The internal and external context of the SMEs; which is assumed to have an influence on its innovation activities is defined as provided in Table 1b.

Table 1b. Definition of Concepts	
Item	**Definition**
Innovativeness	Innovativeness is described as "the tendency for a enterprise to adopt innovations" (Damanpour, 1991; Garcia & Calantone, 2002).
External Context	The external determinant of innovation, which is the business environment, can be further broken down into customers, competitors, government, external source of innovation (external linkages), and market structure (Teece, 1996). Changes in external environment can create a situation where enterprises should respond to survive in the ecosystem.
Organizational Performance	An indicator which measures the success of the organization to meet its objectives. The organizational performance is at the same time relative towards the competition, therefore, it is related to the competitive advantage of companies.

Appendix 3. InnoPlatform Survey Questionnaire with Processing Instruction

Interreg
Balkan-Mediterranean
INNOPLATFORM

InnoPlatform project is co-funded by the European Union
and National Funds of the participating countries