PLOVDIV UNIVERSITE "PAISII HILENDARSKI" FACULTY OF ECONOMICS AND SOCIAL SCIENCES

Appendix 8.1. Annotation of Materials

ANNOTATION OF MATERIALS under Article 65 (1) of the Regulations for the Academic Staff Development at Plovdiv University "Paisii Hilendarski"

BY CHIEF ASSISTANT PROFESSOR DR. KATERINA YORDANOVA KOZLUDZHOVA in connection with participation in a competition for the ACADEMIC POSITION OF "ASSOCIATE PROFESSOR" in:

Field of Higher Education: 3. Social, Economic, and Legal Sciences; Professional Field: 3.8. Economics (Marketing – Product Innovations) announced in State Gazette Issue 98/19.11.2024

I. Compliance with the Requirements for Occupying the Academic Position of "Associate Professor" under Article 65 (1), Points 1, 2, and 3 of the Regulations for the Academic Staff Development at Plovdiv University "Paisii Hilendarski"

My professional journey at Plovdiv University "Paisii Hilendarski" began in 2016, when after successfully passing the doctoral entrance exam, I was enrolled as a full-time PhD student in the Department of "Management and Quantitative Methods in Economics" within the same faculty. In 2018, two years after my enrollment, I defended a doctoral dissertation titled "Commercialization of Innovations in the software industry". I received the educational and scientific degree of "Doctor" in the field of higher education 3. Social, Economic, and Legal Sciences; professional field 3.8. Economics; doctoral program in Economics and Management (Industry). In October 2018, after successfully passing the entrance exam, I was appointed to the academic position of "Chief Assistant Professor" in the field of higher education 3. Social, Economic, and Legal Sciences; professional field 3.8. Economics (Marketing – Marketing Research), becoming a member of the Department of "Marketing and International Economic Relations" in the faculty.

My teaching experience began in 2017 with my first interactions with students and my role as a teaching assistant in the exercises of the course "Marketing" in the Faculty of Economics and Social Sciences. In 2018, I developed a new course titled "Business Innovations" which was introduced in the 2018/2019 academic year, as an elective course first, for students in "Marketing", bachelor degree. In subsequent years, the course "Business Innovations" was included in the curricula of the specialties "International Economic Relations", "Business Management" and "Tourism Business Management." For the students in "Marketing" the course became part of the core curriculum.

For the needs of the Department of "Marketing and International Economic Relations" I updated and enhanced the course "Marketing Research". Starting in the 2018/2019 academic year, I began teaching

this course to students in "Marketing" from the Faculty of Economic and Social Sciences, as well as to students in "Linguistics with Marketing" from the Faculty of Philology and "Chemistry with Marketing" from the Faculty of Chemistry.

In 2021, I published the textbook "Business Innovations" designed to support students studying the course "Business innovations" by making it easier for them to understand and master the lecture material. In 2023, I developed the website "innovations-edu.com" to support and organize my teaching activities in the courses "Business Innovations" and "Marketing Research.". Students have free access to lecture topics, assignments for exercises, and discussion materials that contribute to building both theoretical knowledge and specific skills of an innovator. They also have access to interesting and up-to-date articles and researches in the field of innovations.

Currently, as a lecturer at Plovdiv University "Paisii Hilendarski," I deliver lectures and conduct seminars in the courses "Business Innovations" and "Marketing Research" for students in the following bachelor's degree programs: "Marketing", "International Economic Relations", "Business Management", "Tourism Business Management", "Linguistics with Marketing "and "Chemistry with Marketing".

In my teaching activity, I focus on continuous interaction with students, fostering engagement with the course, involving students in the learning process, and inspiring interest and enthusiasm for theoretical knowledge. I regularly update the practical assignments and exercise topics by incorporating case studies based on real-world examples from global and leading businesses, which stimulate students' analytical thinking and creativity.

Each academic year, I also engage with international students under the Erasmus+ program. For them, I developed the courses "Business Innovations," "Marketing Research," and "Marketing" in English language.

Before my work at Plovdiv University "Paisii Hilendarski," during the period 2008–2011, I held the position of Product Manager at one of the leading software companies in Bulgaria. In this role, I successfully led the innovation process for the development and implementation of innovative solutions for automating and managing business processes. Among my most significant achievements was the creation of online platforms that integrate key business processes with access to global services and online payment systems. These products were recognized with the "Innovative Enterprise of the Year" award for two consecutive years, highlighting their uniqueness and sustainable impact on the market. As a speaker at international business conferences, I have had the opportunity to share my knowledge and promote the study of innovations as a strategic tool for sustainable development.

As a practitioner, I combine my professional experience with my academic work by actively researching new approaches and models for managing innovations and transforming them into an effect on economy and society. My efforts are focused on building a bridge between academic theory and business practice. On the one hand, I aim to encourage business organizations to develop successful innovations; while on the other hand, I strive to inspire students to perceive innovations as drivers of growth and to acquire the knowledge and skills needed for their development and successful implementation.

For my application to the competition for the academic position of "Associate Professor" in the scientific specialty "Marketing – Product Innovations" I present the following academic works: 8 scientific publications (4 studies and 4 articles); 1 monograph; 1 textbook and 1 book based on doctoral dissertation.

Five of the scientific publications are indexed in global scientific databases – Scopus and Web of Science (4 of them in quartile Q4 and 1 in quartile Q2). The other scientific publications are indexed in other global scientific databases, including OAJI, SJI Factor, Open Access Library, DOAJ, Crossref, Semantic Scholar, BASE, Digital Object Identifier, SCIMAGO, ROAD, Mendeley, Google Scholar, and more. The published textbook "Business Innovations" supports the academic course "Business innovations", which is developed for students in the Bachelor's degree program.

The presented materials were developed after obtaining my doctoral degree and the academic position of Chief Assistant Professor.

Regarding Indicator D, I have submitted 19 citations in scientific publications. 4 are the citations in scientific publications, indexed in the world databases of scientific information Scopus and WOS. 15 are the citations in other world databases with scientific information (OAJI, SJI Factor, Open Access Library, DOAJ, Crossref, Semantic Scholar, BASE, Digital object identifier, SCIMAGO, ROAD, Mendeley, Google Scholar, etc.

For my participation in the competition for the academic position of "Associate Professor," I have provided a report of compliance with the minimum national and faculty requirements.

II. Summary – Self-Assessment of Scientific Output and Publications in Specialized Scientific Journals Submitted for the Current Competition under Article 65 (1), Points 4 and 5 of the Regulations for the Academic Staff Development at Plovdiv University "Paisii Hilendarski"

The subject of the present annotation is the scientific publications listed in Appendix 6. Scientific Publications. The presented scientific publications focus specifically on the study of the theoretical and empirical knowledge in the field of product innovations, uncovering the main challenges in their development, and the demand for comprehensive models for achieving successful product innovations. The scientific works examine the innovation process in two parts: the development and implementation of the innovative product, which turns it into a product innovation. This approach allows for a comprehensive coverage of the innovation process in creating product innovations, enabling an in-depth study of the innovation process, identifying key challenges, and finding answers to important questions regarding the development of successful product innovations.

1. Monograph

Kozludzhova, K. (2024). *Product Innovations. Integrated model of innovation process for successful product innovations.* University Publisher "Paisii Hilendarski", Pages: 364, ISBN 978-619-202-882-4.

Summary:

The monographic work presents the author's theoretical and empirical research on product innovations. This area of scientific inquiry demands an in-depth exploration of fundamental questions related to the state and challenges of product innovations in business.

The primary objective of the monograph is to develop and present an integrated model for successful product innovations. Existing models focusing on the development of product innovations fail to encompass all success metrics defined by business organizations. A key task for the researcher is to validate theoretical knowledge through empirical study and identify opportunities for developing an

integrated innovation process model that is adaptable to a rapidly changing environment and unpredictable market demands and customer requirements. Turning uncertainty and unpredictability into advantages for organizations involves developing adaptive approaches to managing the innovation process. Achieving this transformation necessitates businesses becoming more open to applying new and diverse tools, as well as combinations of these tools, to ensure the development of successful product innovations.

In addressing the state and challenges of product innovations, the author establishes a research process that begins with a core problem: the uncertainty surrounding the innovation process and the development of products that fail to reach the market. The author designs and executes a specific research program and employs a system of research methods to study product innovations. The conceptual model developed in the study supports and facilitates the execution of the research plan and the quest for clear answers to key questions, ultimately guiding the researcher toward creating a comprehensive model of innovation process for successful product innovations.

This monographic work contributes to the advancement of new theoretical and empirical knowledge regarding the development of successful product innovations. It translates this knowledge into a valuable tool for business organizations, embodied in the integrated innovation process model. This model synthesizes the author's theoretical insights, their empirical validation, and practical applicability. The main insights that outline the significance of the monograph could be define as:

- 1. Formulating key theoretical constructs for researching product innovations.
- 2. Developing a conceptual model for studying product innovations.
- 3. Conducting empirical validation of theoretical knowledge through defined research hypotheses.
- 4. Outlining directions for future research in the field of product innovations.
- 5. Performing a comparative analysis of existing models for developing product innovations based on success metrics identified by the conducted study.
- 6. Identifying the key components of a model for successful product innovations.
- 7. Proposing an additional criterion for evaluating a company's profitable opportunities to develop successful product innovations.
- 8. Developing an integrated innovation process model for successful product innovations, adaptable and applicable across various industries.

2. Book on dissertation

Kozludzhova, K. (2019). *Commercialization of innovations in the software industry*. University publisher "Paisii Hilendarski", pages: 275, ISBN 978-619-202-326-3.

Summary:

The topic of the dissertation is "Commercialization of Innovations in the Software Industry." The concept of "commercialization" is defined as the process of introducing the product innovation to the market with the aim of creating a desire and interest towards the innovation and generating sales. The commercialization is the ultimate goal of the innovation—its acceptance by the market serves as a measure of its ability to meet market needs, deliver benefits, and enhance the company's competitiveness. In this sense, the concept of "innovation" is also relevant to the policies of the European Union. Bulgaria's modest

innovation performance calls for measures to address the challenges and solve the key issues related to the commercialization of innovations.

The aim of the dissertation is to develop a model for Innovation Commercialization, designed to encourage SMEs in the software industry to create innovative products that can be successfully commercialized. This approach aims to transform innovations into a driver of economic development, sustainable economic growth, and a source of higher standards and overall societal well-being. Developing a model for commercialization of innovations in the software industry responds to the innovation-focused policies of both the European Union and Bulgaria. The dissertation addresses the question of how to develop more innovations that can be successfully introduced and use by the market.

The commercialization of innovations in the software industry is viewed as a positive outcome of:

- 1. Conducting an in-depth analysis of the concept of "innovation" and identifying the essence of sources of opportunities for creating innovation.
- 2. Exploring different approaches to launching an innovation.
- 3. Uncovering the nature of software products and innovations within the software industry.
- 4. Identifying key factors for developing an innovation and investigating them within the context of the software industry.
- 5. Conducting a thorough analysis of the concept of "commercialization."
- 6. Selecting appropriate marketing activities to bring the developed innovative product to the market, creating demand for its purchase and use, and generating sales.
- 7. Identifying key factors for the successful execution of the commercialization process and examining them within the context of the software industry.

The main research thesis is expressed through the understanding that the commercialization of innovations in the software industry in Bulgaria has not been the subject of in-depth research and comprehensive analysis. As a result, there is a lack of current knowledge and practical conclusions regarding the state of commercialization of innovations within the software industry in Bulgaria. Furthermore, without this fundamental knowledge, it is impossible to develop strategies and policies focused on creating innovations with successful commercialization —an issue of significant importance to both the European Union and Bulgarian policies.

The main research thesis highlights the need to develop and offer a model for commercialization of innovations as a solution to the identified problems. The proposed model is the result of an extensive literature review on the studied topic and the analysis of data obtained from the empirical research conducted. Its aim is to encourage the development of innovations and improve the innovation performance of software companies in Bulgaria. By applying the developed model in their innovation activities, software companies will be able to overcome the challenges they face and gain confidence in their ability to create innovative products that can be successfully brought to market. This is the essence that transforms an innovation into an engine for economic growth. The key findings of the dissertation could be define as:

- 1. Justification and defense of the thesis focusing on customer-centric business processes for commercialization of innovations in the software industry.
- 2. Presentation of an algorithm for properly understanding and defining customer needs, validated within SMEs in the software industry. The applicability of customer needs defined as "jobs", "desired

outcomes," and "constraints" in the development of innovations has been demonstrated. The fundamental possibility and necessity of developing a profile of the "lead user" has also been proven.

- 3. Formulation of the stages in the process of innovation commercialization.
- 4. Theoretical justification and empirical validation of the stages in the process of innovation commercialization.
- 5. Suggestion of specific marketing activities to execute the proposed stages of the commercialization process.
- 6. Development of a conceptual model for empirical research. There is a solid foundation—scientific, logical, and practical—for applying the conceptual model in future research studies, related to innovation performance in Bulgaria.
- 7. Creation of a model for commercialization of innovations in software industry companies, complete with the relevant toolkit.

3. Textbook "Business Innovations"

Kozludzhova, K. (2021). *Business innovations*. University Publisher "Paisii Hilendarski", pages: 308, ISBN 978-619- 202-660-8.

Summary:

Innovation is a discipline that is studied, developed, and mastered. It represents a vision for the future and the company's ambition to manage its current business with a continuous focus on what lies ahead. Innovation is a concept that explains a fundamental aspect of the term of "business," this is its long-term sustainability. It requires knowledge, specific skills, creativity, a supportive environment, and focus.

The developed textbook, "Business Innovations" provides an in-depth theoretical review of the nature and significance of innovations in modern business. It presents various approaches and opportunities for initiating innovations in business, models for developing commercially successful innovations, and methods and techniques for their effective market launch. The textbook outlines specific skills that innovators need to think creatively, identify and recognize opportunities for innovations, perceive and interpret the world in new ways, uncover and establish new relationships among seemingly unrelated objects, and understand how to leverage these opportunities to generate new and unique solutions that benefit society and add significant value to business organizations. The textbook "Business Innovations" offers interactive learning materials and content suitable for a wide audience. By systematizing theoretical knowledge in the field of innovations, the textbook facilitates easier comprehension of the theoretical material while also fostering and developing the specific skills of innovators.

The content is divided into four parts: Introduction to innovations; Creativity and Design Thinking; Innovation Development and Innovation Commercialization. Each topic concludes with exercises and discussion tasks, as well as sample practical assignments for knowledge and preparation assessment. All exercises and discussion tasks, along with the practical examples are developed by the author of the textbook.

4. Scientific Publication (A Study) (Web of Science)

Kozludzhova, K. (2023). Barriers to Product Innovations: A Theoretical Knowledge and ResearchFramework.EuropeanJournalofSustainableDevelopment,12(2),67.https://doi.org/10.14207/ejsd.2023.v12n2p67

Summary:

The significant role of product innovations in the sustainability and growth of business organizations drives researchers to explore the scientific literature and provide knowledge that aids empirical investigations on the topic. This study identifies critical points in the product innovation process that can create obstacles to developing successful innovations. The primary objective of the study is to investigate, summarize, and develop an understanding of the barriers to product innovation. The "systematic literature review" method is applied as a research approach to examine the theoretical findings of other authors. The systematic review collects and summarizes multiple sources to address specific research questions defined in the article.

In examining these questions, the author presents two categories of barriers to product innovations general barriers and specific barriers. The study offers new directions for studying these barriers, specifically by analyzing different stages of the innovation process and identifying obstacles that hinder their successful execution. The systematic literature review facilitates the creation of specific empirical indicators, which are also defined in the study and can be utilized by other researchers to conduct empirical studies in the field of product innovation. Through the development of measurement definitions and sample questions, the study serves as a practical guide for creating effective questionnaires and conducting research in this area. Barriers to product innovation are only part of the broader research problem related to the question, "Why do product innovations fail in the market?" The author aims to: 1) systematize theoretical knowledge about the barriers to product innovations by categorizing them into two groups. 2) develop an innovative approach for studying the barriers to product innovations. 3) create a research framework for studying the barriers, fostering solutions and encourage the conduction of future empirical studies in this field.

5. Scientific Publication (A Study) (Scopus)

Kozludzhova, K. (2023). Key Aspects of Product Innovations: Theoretical Knowledge and Research Study. *Journal of Law and Sustainable Development*, 11(5), e1130. https://doi.org/10.55908/sdgs.v11i5.1130

Summary:

The scientific study presents the author's main insights from a comprehensive literature review on product innovations. Key aspects of product innovations that shape the essence and content of the concept of "product innovation" are examined. Based on the conducted literature review, the article outlines specific empirical indicators and measurement definitions that facilitate the execution of empirical research focusing on the key aspects of product innovations. The study also reports the results of the author's primary research, which validates and highlights the importance of the identified key aspects of product innovations for the sustainability of business organizations. Additionally, the study provides directions for future research in the field of product innovations. The author aims to: 1) systematize theoretical knowledge regarding the key aspects of the concept of "product innovation". 2) outline specific empirical indicators for studying product innovations, based on the established theoretical analysis. 3) validate the theoretical knowledge, define the significance of the identified key aspects for business organizations, and propose new research horizons in the field of product innovations for both the academic community and businesses.

6. Scientific Publication (A Study) (Web of Science)

Kozludzhova, K. (2021). Closing Techniques for Selling Software Innovations. *Marketing and Management of Innovations*, 3, 223-236. <u>https://doi.org/10.21272/mmi.2021.3-19</u>

Summary:

The generation of sales plays a crucial role in the innovation commercialization process. The study aims to support business organizations in the process of selling their developed product innovations. It examines key techniques for closing the sale. The theoretical knowledge of the sales generation process, with a focus on the closing the deal stage, is defined through a literature review. Popular techniques for closing the deal are explored, and those applicable to the software industry are outlined for sales representatives to use when interacting with potential clients.

The study summarizes the results of the empirical research conducted by the author, which is related to the significance of the sales generation process in the software industry. The findings emphasize the role of closing techniques for the successful completion of a sale. The author formulates a set of primary and supplementary deal-closing techniques that help sales representatives engage effectively with clients, build trust, and successfully close sales, contributing to the company's growth and success. The study also discusses specific skills and abilities that sales representatives need to sell innovative products effectively. Future research may focus on other challenges that business organizations face at different stages of the sales generation process for successful innovation commercialization.

7. Scientific Publication (A Study)

Kozludzhova, K. (2020). Research methodology for studying innovations in the software industry. *International Journal of Scientific and Technology Research*, 9 (6), 114-121.

Summary:

The study presents a research methodology for studying innovations in the software industry. There is a critical need for researches in the field in response to the efforts of innovative firms and the search for ways to enhance their innovation activity. The author thoroughly examines the content of each stage involved in developing the research methodology and provides concrete examples and guidance for implementing these stages, drawing from their own research on commercialization of innovations in the software industry. The developed research methodology supports the successful execution of data collection and analysis processes, which are essential for making informed decisions and taking appropriate actions that foster a favorable environment for innovation. The presented methodology for studying innovations can also be applied to other sectors of the economy.

8. Scientific Publication (An article) (Scopus)

Kozludzhova, K. (2019). Key success factors of innovations in the software industry. *International Journal of Innovative Technology and Exploring Engineering* (IJITEE), 8 (5), 425-431.

Summary:

Innovations are a driving force behind long-term economic growth and structural changes. For consumers, innovations lead to higher quality products, better services, and an improved standard of living. For innovative companies, they provide competitive advantages, adaptability, leadership, and market positions. The software industry plays a significant role in this process by creating key innovations. Innovation is considered the only skill that software companies need to possess to remain competitive and deliver societal benefits. The productivity of production processes across various economic sectors depends on the extent to which software innovations are developed.

This scientific article presents the results of an empirical study focused on the success factors of innovations in software companies. The research was conducted among 33 software companies in Bulgaria involved in innovation activities during the three-year period (2015-2017). The identified key factors are based on the author's literature review and empirical research, which is part of a larger study on the commercialization of innovations in the software industries in Bulgaria. The author aims to: 1) define the key success factors for innovations that innovative firms need to apply and integrate into their innovation processes. 2) highlight the importance of these key success factors in creating a favorable environment for innovations to happen. 3) encourage the search and the development of mechanisms to successfully adopt and implement these factors. The significance of the identified key success factors for innovations has been empirically validated in the software industry but can also be applied to other industries.

9. Scientific Publication (An Article) (Scopus)

Kozludzhova, K. (2019). Creating a model for commercialization of innovations in the software industry. *International Journal of Engineering and Advanced Technology*, 8 (4), 1013 – 1019.

Summary:

The scientific article presents a model for commercialization of innovations in the software industry, developed through an in-depth literature review and empirical research conducted among software companies in Bulgaria. The main thesis is that software companies must create innovations that are successfully implemented to strengthen their competitive positions and ensure long-term sustainability. The article identifies key challenges in the innovation implementation process and proposes solutions through critical steps and tools outlined in the model.

The concept of "commercialization" in the software industry is defined as introducing an innovation to the market to gain interest and desire for purchase and use and generate sales. Commercialization transforms innovation into an engine of economic growth. The article emphasizes the importance of lead users, market segmentation, marketing research, value proposition, and the sales process for successful commercialization. The author presents the model through a sequence of steps and specific tools for their implementation. The model is universal and applicable not only in the software industry but also across other economic sectors. Its application can lead to greater efficiency in developing and implementing innovation swhile enhancing the economic and social value of these innovations. The developed model for innovation commercialization structures the process and encourages the implementation of successful market-oriented innovations. The developed model also aligns with European Union policies and the European Commission's efforts to create an innovation-friendly environment.

10. Scientific Publication (An Article)

Kozludzhova, K. (2020). Conceptual model for Innovation Research. *International Journal on Emerging Technologies*, 11 (3), 1140-1146.

Summary:

Scientific research focusing on innovations plays a crucial role in finding answers to fundamental questions related to the development of successful innovations. Global economies strive to achieve optimal results to meet the increasing needs and expectations of consumers. Researchers aim to contribute to enhancing the innovation activity of business organizations by continuously studying the state of innovation to discover new and different tools for successful implementation. The purpose of this article is to present a conceptual model for researching innovations, aimed at encouraging researchers from academia and business to focus on innovations and conduct regular studies that could provide answers to questions related to the innovation outcomes of companies and directions for their improvement. Additionally, such research assists businesses in acquiring valuable data regarding changing market needs and preferences, major challenges in innovation, critical points in the innovation process, and opportunities that organizations can transform into successful innovations. The developed conceptual model serves as a tool that supports the conduction of empirical research. This model facilitates the research process and ensures the successful completion of studies. The conceptual model identifies the key stages in the innovation commercialization process, which researchers can focus on in their studies. The application of the developed conceptual model allows companies to uncover certain problem areas that may lead to low innovation activity and unsuccessful innovation efforts.

11. Scientific Publication (An article)

Kozludzhova, K. (2018). An empirical research on the commercialization of the innovations in the software industry. *Innovation and Entrepreneurship*, 5 (3), 126-153.

Summary:

The article presents the results of an empirical study on the market realization of innovations in the software industry, aiming to show the current state of innovations in this sector and outline the key factors in the innovation development process and subsequent market realization. The study covered 33 micro, small, and medium-sized enterprises that are members of the Bulgarian Association of Software Companies in Bulgaria, which are considered the so-called "backbone of the economy." The empirical research was conducted in December 2017 and is part of the author's dissertation titled "Commercialization of Innovations in the Software Industry." The article presents the research methodology used by the author for studying the process of innovation commercialization in the software industry, the obtained results of the conducted primary research, and analysis of the state of innovations in the software industry.