D. A. TSENOV ACADEMY OF BUSINESS
FACULTY OF MANAGEMENT AND MARKETING
DEPARTMENT OF MANAGEMENT

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ABSTRACT

on

DISERTATION

for the award of an educational and scientific degree "Doctor"

Professional direction: 3.7. Administration and management
on the topic:

"Achieving competitiveness by implementing innovative strategies (following the example of companies in the industrial sector)"

Scientific Leader:
Ass. Anatoly Stefanov Asenov, MD

Svishtov, 2022

In compositional terms, the dissertation consists of a list of abbreviations, a list of figures, an introduction, three chapters, a conclusion, a bibliography, an liking and a declaration of originality. The presentation includes 8 figures and 11 tables.

The dissertation work was presented and discussed in the Department of Management at the Faculty of Management and Marketing of the Economic Academy "D. A. TSENOV" - Svishtov.

The public defense of the dissertation will take place in a public meeting of the scientific jury of the ..... from..... hours in .....
The security material is available in The New Press.
and to the Internet address.....

I. CONTENT OF THE AUTHOR'S

3.3. Competitiveness study achieved by implementing innovative strategies at Elplast Ltd.

Summary conclusions of the survey

4. Exploring opportunities to increase competitiveness by implementing innovative strategies in research sites

4.1. Exploring opportunities to increase competitiveness by implementing innovative strategies at Bio Fresh Ltd.

4.2. Exploring opportunities to increase competitiveness by implementing innovative strategies at Bultek Ltd.

4.3. Exploring opportunities to increase competitiveness by implementing innovative strategies in Elplast Ltd.

Summary conclusions of the semi-standardized interview

CONCLUSIONS TO CHAPTER THREE

CONCLUSION

APPLICATION

- GUIDELINES FOR FUTURE RESEARCH ON THE SUBJECT OF THE DISSERTATION
- REFERENCE TO SCIENTIFIC CONTRIBUTIONS
- LIST OF PUBLICATIONS ON THE SUBJECT OF THE DISSERTATION WORK
- DECLARATION OF ORIGINALITY OF THE DISSERTATION WORK

GENERAL CHARACTERISTICS OF THE DISSERTATION WORK

In the first place, achieving competitiveness through innovation is essential for the sustainability and progress of the industrial sector. Secondly, the relatively weak development of the problem of competitiveness through the implementation of innovative strategies (following the example of industrial companies). For these two main reasons, as well as a research-led interest, we conducted a study that we formed in the form of dissertation work.

The dissertation work **is structured** as follows: abbreviations used, list of figures and tables, introduction, three chapters, conclusion, literature used, annexes and declaration of originality of the dissertation work.

The **introduction presents** the most important elements of the dissertation from a methodological point of view.

Chapter **One provides** an overview of theoretical views on competitiveness, innovation strategies and their interdependence.

Chapter **Two analyses** and summaries innovation policies (strategies) in the competitiveness context, on the basis of which an author's algorithm is designed for the purposes of empirical research.

Chapter **Three** examines the competitiveness of industrial companies by implementing innovative strategies.

The list of **literature used includes** a total of 100 sources - 54 in Cyrillic, 40 in Latin, as well as 6 electronic sources.

The conclusion of the dissertation work summarizes and synthesizes the results obtained and responds to the main research problem.

An **annex presents a** model of a questionnaire that has been applied for the purposes of empirical research.

In **the declaration of originality**, the author declares that the dissertation work is authentic and the results and contributions achieved therein are original.

The topicality of the theme of the dissertation is determined by the following:

1. The ever-increasing role and importance of the theoretical and practical aspects of achieving competitiveness by implementing innovative strategies.

2. Highlighting and verifying scientific and scientific and practical problems related to the effective and stable construction of systems to achieve competitiveness by implementing innovative strategies (following the example of industrial companies).

Development of the theme. A place in modern scientific discussions. It can be argued that, from a scientific point of view, the theme of achieving competitiveness by implementing innovative strategies within the industrial sector is relatively poorly developed. That

the scientific problem of achieving competitiveness by implementing innovative strategies within the reach of the industrial sector is central to modern scientific discussions, but scientific controversies in this problem field are undoubtedly observed, with the trend upwards.

The public and practical need for the study is beyond doubt. It is predetermined in particular by the fact that, in relation to increased competitiveness by implementing innovative strategies within the industrial sector, a significant number of economic agents and organisations, as well as society as a whole, are also interested.

The competitiveness of the organizations is the subject of research.

The competitiveness of the organizations is the subject of research by implementing innovative strategies (following the example of companies in the industrial sector).

The main objective of the dissertation work is to explore the specific mechanisms by which competitiveness is achieved by implementing innovative strategies.

Two types of tasks are performed to meet the main objective.

Theoretic-research tasks:

1. Analyze and synthesize the current state of the scientific problem in order to achieve competitiveness by implementing innovative strategies.

2. Identify certain scientifically unresolved and scientifically controversial theoretical issues relating to competitiveness through the implementation of innovative strategies.

Tasks of a practical nature:

1. Identify and summarise the practical aspect of taking action to achieve competitiveness through the implementation of innovative strategies.

2. To study and analyze some of the main practical problems related to achieving competitiveness by implementing innovative strategies in the industrial sector.

3. On the basis of an empirical study, bring key opportunities to business practice, including to researchers, managers, professionals on achieving and enhancing competitiveness by implementing innovative strategies.

The main research thesis that the author attempts to prove in the dissertation work is that if the economic organizations working in the industrial sector do not implement innovative strategies, then they cannot achieve high competitiveness.

For **methods of research** are selected: analysis and synthesis, content analysis or analysis, interviewing, observation, SWOT-analysis, survey method, induction and deduction, graphical and tabular presentation of the information.

In the development of the current dissertation, some limitations in the scope of the study have been adopted, and they are bound by certain spatial and time limits. The main focus in the dissertation is to explore the achievement of competitiveness by applying innovative strategies following the example of companies in the industrial sector within the scope of the Republic of Bulgaria, although the same issue is addressed. The dissertation analyses and summarises the achievement of competitiveness by implementing innovative strategies, especially in the 21st century, although some historical flashbacks are also being made.

In terms of **experiential** part, we encountered several difficulties. The difficulties were mainly driven by research problems related to the preservation of company secrecy and the reluctance of the majority of companies in Bulgaria to share their specific know-how within the scope of innovation and competitiveness on the research objectives of the current work. Faced with the reality of not being able to carry out research with a larger sample group of commercial companies, we were forced to focus our efforts on sites that responded voluntarily to the survey conducted, in this case three sites operating in the Industrial sector, differing significantly in their subject matter.

The approbation of the dissertation work was carried out in the framework of periodic reporting and discussion before the Department of Management of the Faculty of Management and Marketing at the Dimitar A. Tsenov Academy of Economics.

Thanks. The author of the dissertation addressed words of gratitude to his scientific leader, to the colleagues from the Department of Management at the Business Academy "Dimitar A. Tsenov" Svishtov and her management, who helped him to develop and write the dissertation. to be able to carry out the empirical examination of the basic research hypothesis we have raised.

SUMMARY OF THE CONTENT AND RESULTS OF THE STUDY

CHAPTER ONE.
OVERVIEW OF THEORETICAL VIEWS ON COMPETITIVENESS AND INNOVATION STRATEGIES

1 . Theoretical analysis of competitiveness and competitive advantages

1.1. Evolutionary views on the concepts of 'competition' and 'competition'.

In the context of dispersed and incomplete knowledge, competition is a way of identifying what individuals' needs are, how and by whom they are best met. The role of competition is precisely to improve the transfer of knowledge in a world of obscurity, uncertain future and scarce resources. It is a process of continuous consideration of what human needs are, what to satisfy, who can best do it and what technologies to use. (Stanchev, 2008)

The competition (from Latin ez. Concurrentia – i.e. rivalry, collision, competition) has been thoroughly and thoroughly studied by a large number of scientists, with a large number of scientists prevailing between them. Schools and directions use a variety of approaches, concepts, models and definitions to describe, analyse and interpret the concept in question.

At the end of the twentieth century, the theory of competition was greatly enriched by the prominent American economist M. It's Porter. This researcher has a rare ability to present the complex academic fabric of competition in a popular language, which brings him wide notoriety. You can say with confidence that his book "Competitive Strategy: Techniques for Analyzing Industries and Competitors" becomes a desktop reading of a huge number of managers from all industries, industries and sectors around the world, and is also widely viewed and interpreted in academia (Porter M., Competitive Strategy: Techniques for Analyzing Industries and Competitors). **,**1998). After analyzing and interpreting the concepts of various researchers in the field of economics and management, Porter offers his own model for the 5 competing forces that make up the image of each industry (see Table 1).

The researcher argues that its model can help companies find a so-called competitive advantage (advantage) that will help them take a better position in the market and, as a consequence, increase their profitability. , the lower the profitability in it and vice versa – the lower the competition, the higher the profitability. However, that assertion proves the systemic nature of the competition. Michael Porter defends the claim that the five competing forces are the main source of competitive pressure in an industry (industry). He stresses that the five forces are an integral **part of the structure of each industry (industry)..**

Table 1.

Five competing forces: type and essence

Type of force	Essence of power
Risk of new competitors entering	It is determined by the magnitude of the barrier to entry into a particular industry (industry).
Competition between existing companies in a target market	This power exists all the time. In case the yield is low, in case it is strong – the yield is low.
Consumer threat	Consumers can influence the prices of goods and services. When consumers have the opportunity to influence the prices of goods and services, they always take advantage of that power.
Threat to suppliers	It is determined by the ability of suppliers to increase prices. Companies should strive to diversify their suppliers, as they can thus reduce the prices of the goods and services received.
Threat of emergence of substitute products	The emergence of substitute products weakens a company's market position,

	reduces its sales and, as a result, its earnings shrink.

Източник: Porter, Michael. (1998). *Competitive Strategy: Techniques for Analyzing Industries and Competitors.* New York: Free Press.

M. Porter proves that at the end of the twentieth century competition was no longer national, but global in nature. (Porter M. , Competition in Global Industries., 1986)It follows that, at global level, not only the economies of individual national states are already competing, but also companies that operate in different socio-economic conditions. It is not a new phenomenon: nations have been trading with each other for hundreds of years, and multinationals have been part of the business landscape since the beginning of this century... Today, however, interest in international competition has never been greater, and not only among managers, but also among researchers... Why this new interest?... Trade has exploded since 1950, and international investment has been steadily growing since 1960. Countries are in a tangled situation with regard to international competition. Competition these days has become a necessity for many companies." (Porter M. , Competition in Global Industries., 1986, p. 1) As a result, we can note that Porter as early as 1986 saw in the competition elements that these days have become a trivial daily life.

The evolution of the researchers' views on competition, which they create in different historical stages, allows the following conclusions to be drawn:

From the opinions submitted, we understand that there is no single scientific definition of competition, since one of the authors studied develops the theory of competition in a peculiar way by examining it through its own specific angle.

We conclude from our analysis that competition is a phenomenon characterised by a total and global nature, which in most cases has a positive effect and is good for society as a whole, as it manages to strike a balance between supply and demand on the market and contributes most fully to the more efficient allocation of resources.

It should be noted that competition differs significantly from **competitiveness.** Competitiveness is an ability to create prosperity by producing goods and services that successfully pass the test in an union limited market and educated demand under normal conditions.(Antonova & Gedinach, Competition as a Universal Adjustment Tool, 2008)

In general, it can be said that competition is the activity (carried out through actions) that takes place in order to realise the phenomenon (competition). exist in business reality and can be described, analysed and interpreted using the entire scientific toolkit of theoretical and experimental methods.

Global competition goes through different time periods, characterised by a number of peculiarities. the three indicators aligned differ significantly: competing entities, compete intensity and competitive regulation. The second half of the 19th century was characterised by a huge number of small sellers meeting in heterogeneous markets. In the first half of the twentieth century there was a tendency towards the predominance of monopoly organizations. This also predetermines the dominance of anti-monopoly legislation. The second half of the twentieth century was the time of the great number of small and medium sellers and buyers carrying out billions of transactions.

From what we have said so far, we can predict that in the near future there will be a network of global competition between heterogeneous entities, as the elements of the state monopoly will be restored on the historical stage, which is likely to lead to an increase in protectionism and state regulation.

Different types of competition are present in the scientific literature, and this objective fact is noted and commented on by almost all researchers in their publications.

According to ***the scope***, there are seven types of competition: Individual – individual economic agent competes with other economic agents; Local – competition develops within a certain territory (relatively small); Branch competition is within a particular industry; Inter-sectoral – competition is between different sectors; Regional – competition is unfolding in a particular region (relatively large) ; National – competition is within a country (national economy); Global – competition extends to the whole planet.

According ***to the ethics of competitors' behavior***, competition is divided into two types: ethical – here rivals use such tools as improving the quality of goods and services, lowering prices (not below their cost), innovation, adequate and correct advertising, etc.; unethical – it resorted to imitation products, industrial espionage, theft of key specialists, dumping, cartelization, dissemination of false information, various misconduct (threats, blackmail, extortion) etc.

In ***the way of*** competition, competition is divided by two types: price – in this case, the goods or services are marketed at a lower price than that of competitors. established on the market; not price – here the price is not determining, but factors that lie outside it. It is about offering different types of services that the buyer receives if he acquires a particular product. This type of competition is very lucrative for consumers for whom price is not a decisive motive for purchasing a particular good or service.

By ***the*** quality of the goods and services offered, competition is of three types: functional – in the case of the same goods and services, but differing in quality; subject matter – in different goods and services of different quality; mixed – in the case of similar (similar) goods and services of varying quality.

According to ***its intensity***, the competition is divided into four types: weak – there are few competitors on the market and, as a rule, a high profit margin; a moderate – relatively limited number of rivals in the market and an acceptable profit margin; a strong – a large number of competitors on the market and, in this connection, a low profit margin; hyper competition – an extremely large number of competitors in the market and a chaotic profit margin.

The competitive market is initially free and there are no insurmountable entry barriers, as well as regulatory restrictions on competition of a completely harassing type (with some small exceptions). quantity and quality of competing companies; technologies and innovations used; advertising of goods and services; distribution and sale channels; quality guarantees; conditions of delivery and company service. It has long been established that the fewer companies are able to influence the market where they sell and sell their

products, the more competitive this market is. Conversely, the more companies have the opportunity to influence the market and its prices, the less competitive this market is.

Under the **existing** regulation, competition is divided into three types: free – regulation is weak or almost absent, with companies having a great deal of leeway; moderate - market relations are moderately regulated; strong – regulation is very strong and in this regard companies have to comply with numerous laws and regulations. , the most important of which are the following: the existence of corporate structures and legal relations on a country's holding; existence of state and private property; seeking economic players in the market to minimize their transaction costs; optimization of market relations. A small number of researchers devote their work to the following problem – how market regulation affects competition. The vast majority are of the opinion that free regulation has a favorable effect on competition, but there are also those who defend the opposite thesis – free regulation does not have a favorable effect on competition, but on the contrary – hinders it.

Competition is both a cause and a consequence of the competitive behavior of all market entities. The stronger and more intense the competition, the more complex the management of individual competitive abilities. (Velkov)

It is clear from the presentation and analysis of the different types of competition that they are numerous, have characteristics and have a peculiarity. It can be added that competition is a single generic concept, but it is divided into many species of the most diverse nature. All these circumstances must be taken into account when competition is analyzed and interpreted with a view to increasing the effectiveness of the social organisation.

1.2. Nature and classification of competitiveness

In contrast to competition and competitiveness**, competitiveness** is the quality of individuals, entrepreneurs and corporations, not peoples, states or economies. companies and continued investment in human capital. An economy in which even its own consumers do not buy what it produces is doomed to decline. (Antonova & Gedinach, Competition as a Universal Adjustment Tool, 2008) Competitiveness is a complex, multicomponent and

synthetic category in which the results of the development of the company, industry or the overall economy reflect. (Delceva, 2009)

Competitiveness of products and services **-** determined on the basis of the degree of attractiveness of a product/service to the buyer to meet his needs.

Competitiveness of companies **-** this is the opportunity to take advantage of the current factors of the environment for the creation and realization of products/services, which in a price and non-price state are more attractive to buyers and more fully satisfy their needs than those of competitors, as a result of which the company is able to achieve good profits over a long period of time.

Competitiveness of industries – possessing competitive advantages in the industry through which to produce products of high quality at comparable or lower than competitive prices and to be delivered at the right time for the market.

Competitiveness of national economies – at macro level the concept is related to the possibility of counteracting the use of foreign products and services, both domestic and external markets.

Summarizing what we say, we come to the following locked:

The researchers' views on competitiveness are not distinguished by unity, but rather by diversity. Among the vast majority of them is the assertion that competitiveness is defined by resource productivity, essentially representing a relationship between markets with high demands and continued investments in human capital aimed at achieving and **maintaining** competitive advantages. ***the ability of an economic agent to overcome its competitiveness under certain conditions by realising market supremacy.***

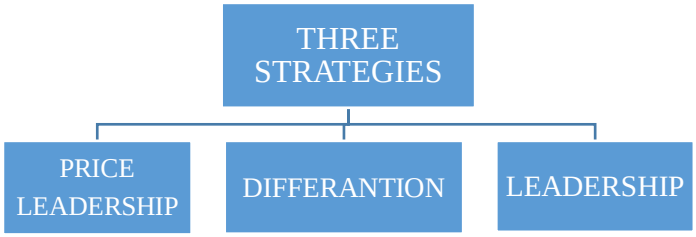
1.3. Analysis of competitive advantages as an activity predestining the competitiveness of the organisation

Regardless of the level of governance, competitiveness is achieved when and only when the company makes a product proposal that has a clearly identifiable competitive advantage. (Sheterev, Study of modern company and product competitiveness in the Bulgarian industry) At the beginning of the 21st century, there was a huge increase in competition, both within national states and at global level, contributing to the development

of the concept of competitive advantages. Michael Porter (Porter M) is considered the creator of the concept of competitive advantages. ,1985). Porter's ideas quickly became popular as numerous scientists attempted to further develop and modify them.

According to Michael Porter, the company can achieve a competitive advantage in only two main ways: low price and differentiation (Porter M.,1985, pp. 11-15).

- In ***the strategy of*** price leadership, the company aims to become the lowest-priced producer in an industry.
- In ***the differentiation*** strategy, the company attempts to be unique in some respects in a particular sector, which is highly appreciated by buyers.
- In ***the focus*** strategy, the company focuses only on a specific segment of the market or group of segments, completely excluding all other segments. This strategy has two varieties. In the first, the company is looking to obtain a price advantage in its chosen segment, while in the second, the company seeks differentiation in the segment in which it operates.



Source: Porter, Michael. (1985). *The Competitive Advantage: Creating and Sustaining Superior Performance.* New York: Free Press.

Figure 1. Three generic (generic) strategies to achieve a competitive advantage

It should be noted that other authors bring different from those mentioned by M. Porter strategies to achieve a competitive advantage.

The development of the concept of competitive advantages makes it possible to draw the following main conclusions:

The concept of competitive advantages has a relatively short historical evolution, and it unfolds mostly in the theoretical russal of strategic governance.

Michael Porter's contribution to the birth and development of the concept of competing ancestors is undeniable and undeniable, and within this scientifically problematic field, no other researcher has yet succeeded in surpassing the first passer-by.

In both theoretical and practical terms, competitive advantages are not understood and interpreted unambiguously by the numerous researchers dealing with them.

The concept of competitive advantages is likely to continue to develop in the future with unabated strength, which is mainly due to its undoubted and important relationship with business practice to achieve high competitiveness and innovation activity.

2. Conceptual importance of innovation and specificity of innovation strategies

In recent years, academic interest in innovation has increased sharply. This is due to a number of reasons, one of the most significant being that innovation is directly linked to market innovations from which huge income is derived and impressive profits are made. Innovation has proved to be a key mechanism for obtaining competitive advantages, as they significantly improve the consumer qualities of products and services offered on the market. All this also reflects on research, as they are directly related to the project principle (especially within the EU) and targeted funding aimed at studying innovation in different sectors and fields. a century since the reconciliation and overlay of two crucial interest aimed at innovation studies – research (academic) interest and market interest.

2.1. Theoretical aspects concerning the concept of 'innovation'

Innovation is a concept with complex content that cannot be defined unambiguously or fully to satisfy the requirements of different practical situations. (Panteleeva, 2013, p. 22)

At some stage, academic research on innovation faces significant difficulties, with this compilation starting at the definition level. Those difficulties are mostly linked to the following ***circumstances:***

- the concept of innovation has many meanings, being used in different spheres, sometimes quite distant from each other (social, psychological, technical, business);
- innovation is a basic concept that is incorporated into various explanatory theories and concepts that, as a rule, are based on different methodological platforms;
- differences in the use of innovation criteria. For some scientists, the criteria are one, for other scientists – quite different;
- there is a significant divergence in determining the scientific weight of the concept of innovation. According to the first group of researchers, innovation is a very important theoretical construction, according to a second group of researchers, innovation is a significant but still not decisive theoretical component, while for a third group of researchers innovation is a minor theoretical problem that can even be completely ignored;
- a historical retrospective highlights very large differences in theoretical analysis and interpretation of views on sources of innovation.

It is also necessary to distinguish between innovation as a product, service and innovation as a process. The implementation of innovation involves carrying out activities whose nature, complexity and deployment over time form a specific process.

The innovation process is a regular, relatively continuous and dynamic process, oriented towards the implementation of new or the improvement of existing elements. In general, it can be defined as the process of creating and disseminating innovation, i.e. as a set of consistent and logically related activities that take place from the moment the idea of innovation arises to its market realization and subsequent dissemination. (Panteleeva, 2013, p. 66)

For the purposes of this work, innovation is seen as an indivisible element of the process of implementing and improving new products or services, which predetermines the subsequent competitive advantages and their successful positioning in the hard-to-predict market.

Scientific perceptions of innovation change with the stages of development of innovation theory. It is therefore necessary to trace precisely these historical stages. In this

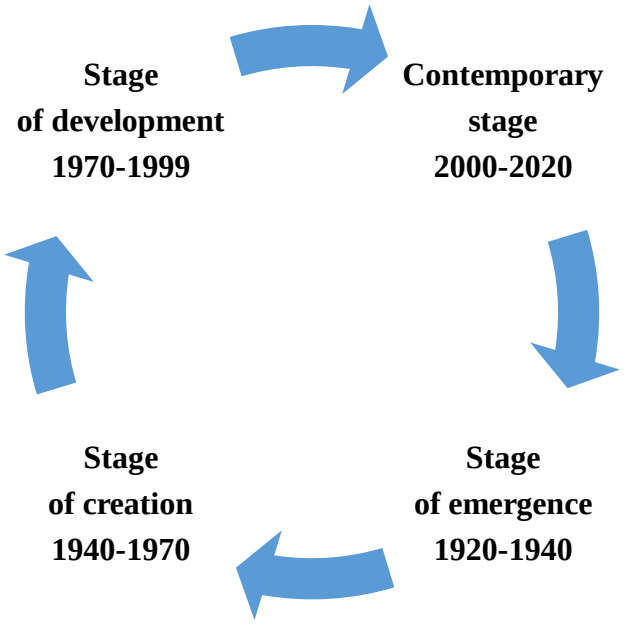
regard, there are conflicting views, but the prevailing opinion can be illustrated by the understanding of G. Aloyan, who determines (Aloyan, 2015) that there are four ies in ***the*** development of the theory of innovation as follows (see Figure 2):

Stage of origin (20-40 th century). Representatives: Nikolay Kondratiev, Pitirim Sorokin, Josef Shumpeter, etc. Main ideas: Formulation of the main ideas of the theory of innovation; Formulation of the basic concepts within the theory of long waves and cyclical crises.

Stage of creation (40-70 20th century). Representatives: John Bernal, Simon Kuznets, Robert Solu, etc. Main ideas: Development of previously created innovation ideas within the framework of applied research.

Development stage (from the 1970s to its end). Representatives: Bengt-Ake Lundwal, Stanley Metcalf, Christopher Freeman, etc. Main ideas: Development of new approaches to the classification of innovation, formation of concepts for national and regional innovation systems.

Contemporary stage (from the beginning of the 21st century to the present day). Representatives: Ken Vathanabe, Robert Ayres, Charles Wessner, etc. Main ideas: Issues of innovation policy and the formation of innovative ecosystems.



Source: Aloyan, D. 2015

Figure 2. Stages in the development of the theory of innovation

Researcher Matvaykin adheres to the view that the signs of innovation activity are four \u2012 qualitative, quantitative, comparative and market- and each attribute is bound by (Matveikin, 2007)set indicators. (see Table 2)

Table 2 Resource requirements by component

Signs and indicators of innovation activity

Signs	Indicators
Quality	Emergence of a new or improved product, technological process, information or new approach for market and social services implemented on the market
Quantitative	Minimum part of research and development costs entering the cost of production. Limit period of use of production. Intought absorption (relationship between research and development costs and sales).
Comparative	Compliance of standards and good national and foreign templates
Market	Forming a new segment of the market. Possibility for commercial realization of goods, services or technologies.

Source: Matveikin, Valery G. et al. (2007). Innovative potential: Current state and development prospects. Moscow: Izd. "Mechanical Engineering 1"

We are of the opinion that the signs and indicators of innovation activity presented by B. Matvaykin do not exhaust all of them. In this regard, they can be added, for example, and combined (signs bringing together qualitative and quantitative elements) and financial signs.

By examining the theoretical aspects concerning the content of the concept of 'innovation', we can provide the following summaries:

As a whole, innovation aims to support the management process by achieving higher focus and efficiency, which directly contributes to the future success of the modern business

environment. A number of research opinions have been presented, in which innovation is seen on the one hand as an up-to-date opportunity to overcome a socio-economic crisis and, on the other hand, ***as an essential element for achieving overall organisational change. any new approach to the creation, production or distribution of goods or services, with the result that the innovator (most often an entrepreneur) or a company receives competitive advantages.***

2. 2. Innovation typology

Almost all researchers who thoroughly and systematically study innovation note that they are subdivided into different types. There is also numerous studies on innovation, regardless of their nature, and some of them bring the most important innovations in human history, which is also a defined type of typology (see Table 3).

Table 3 Resource requirements by component

The most important innovations in human history

Year	Discovery/Innovation
B.C.	
500000	Fire (Homo erectus)
20000	Invention of bow and arrow
7000	Pottery
2800	Egyptians start using the calendar (12 months, 365 days)
1550	The earliest discovered medical textbook (Egypt)
700	First solar clocks
650	First standardised coins (Greece)
400	Catapult – first standardized artillery (Greece)
After Christ	
105	Charter (Tsai Long)
1000	Gunpowder (China)
1180	Windmills (Europe). Compass (Europe)
1440	Printing Press (Johan Gutenberg, Europe)
1494	Introduction of bilateral accounting (Luca Pacioli)
1642	Discovery of the mechanical washer (Blaise Pascal)
1668	Reflective Telescope (Isaac Newton)
1760	Bifocal Glasses (Benjamin Franklin)
1783	Air balloon (Mongolfier brothers)

1800	Electric battery (Alessandro Volta)
1824	Braille for the blind and the faint-seeing (Louis Braille)
1846	Sewing machine (Elias Howie)
1852	Elevator (Elysée Otis)
1860	Vacuum Cleaner (Daniel Hess)
1866	Dynamite (Alfred Nobel)
1873	Jeans (Jacob Davis and Levi Strauss)
1876	Phone (Alexander Graham Bell)
1879	Light bulb (Thomas Alva Edison)
1889	Car (Carl Benz)
1903	Plane (Wright Brothers)
1913	Mass production (Henry Ford)
1928	Penicillin (Alexander Fleming)
1957	Contact lenses (Otto Vihterle)
1974	Sticky sheets (Art Fry and Spencer Silver); Rubik's Cube (Erno Rubik's Cube)
1976	Pc (Steve Jobs and Steve Wozniak)
1998	Google (Sergey Brin and Larry Page)
2001	iPod (Tony Fadell)
2006	Multiplication Madness – mathematics training game (Jennifer Thul)
2010	Apple iPad (Steve Jobs)
2014	Flying Skateboard (Jill and Greg Henderson)
2019	Bioplastics, social robots, co-telepresence

Sources: Inventions & Science, downloaded on 12.11.2020 by www.ideafinder.com/history/of inventors.htm
The best inventions of the creative years, downloaded on 12.11.2020 by https://smartnews.bg/%D0%BD%D0%B0%D0%B9-%D0%B4%D0%BE%D0%B1%D1%80%D0%B8%D1%82%D0%B5%D0%B8%D0%B7%D0%BE%D0%B1%D1%80%D0%B51%82%D0%B5%D0%BD%D0%B8%D1%8F-%D0%BD%D0%B0-%D1%82%D0%B2%D0%BE%D1%80%D1%87%D0%B5%D1%81%D0%BA%D0%B8/ ,
The 12 inventions of the year withdrawn on 12.11.2020 from the https://www.bgonair.bg/a/10-magazine/34637-12-te-izobreteniya na-godinata ,
Top 10 innovative technologies for 2019, downloaded on 12.11.2020 from https://move.bg/technology-2019

We bring this table to the table, as it most clearly demonstrates one of the biggest problems of innovation typology – the lack of a generally accepted scientific criterion. In this case, the question arises – why a specific innovation is included (e.g. sewing machine)

and on the basis of what criterion, and another innovation is not added to the list (e.g. steam engine).

Regarding the presented typological schemes of innovation, we can draw the following conclusions and summaries:

At the heart of different typologies, the researchers set different classification criteria. Several typological schemes of innovation have been analysed, which have become classic and can be used for theoretical and practical purposes.

2.3. Specificity of innovation strategies and their conceptual importance

The innovation strategy is an integral part of the mission and objectives of the modern organization. Moreover, the innovation strategy and its specificity are identified as a leading factor for higher productivity.

There are a small number of varieties of innovation strategies described by different academic authors, and their detailed description and analysis is not intended for the purposes ***of this work***. theoretical publications in the problematic scientific field under consideration. It should be noted that in real business activity individual innovation strategies are often used by enterprises in the most common combinations.

Offensive innovation strategy. Some researchers also call it aggressive. The risk to the company is high using the latest possible technologies. It is not available to small and medium-sized enterprises, which are usually used by large companies that have significant resources. In small innovation projects it can also be used by small enterprises. The offensive innovation strategy is suitable for use in a market segment that does not have a strong leader.

Defensive innovation strategy. In this case, the risk to the company is not high. This strategy is often used by enterprises that are characterized by a relatively high level of technology and technology of production, low maintenance, good marketing and a high profit margin.

Intermediate innovation strategy. The strategy takes an interim position between the offensive and the defence strategy and hence its name. This strategy exploits the

strengths of the enterprise and comes against the weaknesses of the competitors. The interim strategy is mainly used by small and medium-sized enterprises.

Adaptive innovation strategy. Some authors have been labelled as accepting. The most characteristic of it is that companies use innovative developments and technologies created not by themselves but by other enterprises. This is a strategy that is often used in combination with other types of innovation strategy.

Imitation innovation strategy. It is similar to the adaptive strategy. The peculiarity here is that the company uses the innovations on the market (management, product and technological) by only slightly improving, improving and modernizing them. In some cases, the property strategy is very lucrative.

In business practice, innovation strategies are often implemented through five ***different innovative technologies.*** Each of these innovative technologies has peculiar characteristics and is distinguished by a number of features listed below. (Alexandrova, 1999)

Implementation. This is where the innovation process is carried out by people who have developed innovation directly. This type of innovation technology is used for innovations that do not require the whole complex of innovative services.

Consulting. It is carried out by specialized companies that have experience, expertise and know-how in the field of consulting services. and projects, business planning, marketing, financial management, search for potential partners and investors, commercialization of innovations, conclusion of contracts.

Training. This is an innovative technology that provides the accompanying innovation through specific training of individuals who need to bring innovation to the real environment of the company.

Shuttle. This innovative technology ensures the implementation of the innovation project by transmitting (transferring) already acquired technologies to another subject area or geographical sphere. The transfer of technology is a complex type of communication, as it requires coordinated and joint actions by different organisations (an organisation that

carries out the transfer and an organisation that accepts it) which are separated by structural, organisational and cultural barriers.

Engineering. This is a complex innovation technology that covers the entire innovation cycle: from marketing, to project research, business planning, development, delivery of equipment and equipment, cadre accompanying and to subsequent customer service implemented the innovative technology.

3. Competitiveness research through the implementation of innovative strategies

It cannot be argued that a large number of studies can be found in academic publications specifically devoted to innovation strategies as a factor in increasing competitiveness. Innovation and especially competitiveness are the subject of numerous studies by large number of authors and authors. Already here we can note that a serious and unresolved scientific problem on the use of empirical research that explores the achievement of competitiveness by implementing innovative strategies is emerging.

3.1. Competitiveness studies by individual authors

As R points out. Schmuk's competitiveness can be defined in many ways, but none of them are absolutely accurate, all of which have their advantages, disadvantages, supporters and adversaries. 2017) In general, according to the methodology of this study, competitiveness is influenced by the following factors:

- Management and strategy;
- Marketing;
- Finance;
- Control;
- Taxation;
- Innovations;
- Informatics;
- Surrounding (external) environment;
- Labour market.

3.2. Measuring competitiveness in the European Union and in our country

The extensive publication "Measuring Competitiveness" (2017) of the European Union notes that competitiveness can have very different meanings depending on whether it relates to individual companies, groups of companies, economic sectors, overall economic activities in a region or an entire national economy or group of economies. survives on the market and wins (at least in the medium term), the competitiveness of an industry refers rather to its competitive strengths and weaknesses in relation to the international market of the same industry in other countries.

It is concluded that innovation activity in the European Union as a whole is led by small businesses. Of all innovative companies (product, process, marketing or organisational innovations) in the main industries of the Member States of the European Union, 72% (2014) have between 10 and 49 employees, 22% have between 50 and 249 employees and 6% have 250 or more employees (Measuring Competitiveness. European Union., 2017).

3.3. Key conclusions on measuring competitiveness and innovation

The presentation of the models examined so far for research and measurement of competitiveness through innovation gives us reason to draw the following main conclusions, which are directly *relevant to our dissertation research:*

A variety of models, techniques and tools exist and are used to measure competitiveness in its relationship with innovation.

It cannot be said that there is a generally taken and verified treatise to measure exactly how innovation affects competitiveness.

The use of one or another methodology is determined by a number of factors – research objectives, researcher preparedness, research situation, features of the internal and external research environment, etc.

The key terms in the research of individual authors and organizations – competitiveness and innovation – are described, analyzed and interpreted differently. This creates various problems of a methodological, methodical and instrumental nature.

Because of the status quo, the conclusion is that any researcher who studies the achievement of competitiveness through innovative strategies is in need of creating their own algorithm for studying the subject of interest, depending on their own research goals.

CONCLUSIONS TO CHAPTER ONE

The following conclusions can be drawn from chapter one "Overview of theoretical views on competitiveness and innovation strategies":

As a result of the presented ***conceptual analysis on the concepts of 'competition', 'competition', 'competitiveness', a number*** of research opinions have been examined and analysed, which are particularly relevant today on the specificities of the modern organization. 'competitiveness'- ***the ability of an economic agent to overcome its competitors under certain conditions by realising market dominance.***

In this regard, the competitiveness of the different levels (product/service; of the company; of the sectors; of the national economy) is presented, with the main focus on the competitiveness of the company, since individual and success capabilities depend on the creation and maintenance of sustainable competitive advantages leading to effective results for both the individual enterprise and the national economy as a whole.

In order to achieve and increase competitiveness, competitive advantages as a micro-level activity are analysed, as the competitive advantages best reflect the competitiveness of the organisation and its development strategy.

In addition to competitiveness, theoretical aspects of the concept of "innovation" are also important, including the main stages in the development of innovation theory, signs and indicators of innovation activity. As a result of the positions examined, the author draws up his own definition – ***"innovation is any new approach to the creation, production or***

distribution of goods or services, as a result of which the innovator (most often he is an entrepreneur) or a company receives competitive advantages".

Several typological schemes are presented, setting different classification criteria for innovation, from which we understand that there is no universal typological scheme to be adopted by the majority of researchers. It follows that the innovation strategy is an integral element of the overall organisational strategy, without which the overall strategic plan of the company could not exist and function in achieving a future competitive and innovative Prosperity.

In this respect, several studies have been carried out to confirm that innovation is a key factor influencing the organisation's competitiveness and effectiveness. For this reason, it is necessary to analyse the different innovation policies (strategies) at both global and national level in order to create an appropriate algorithm for the research objectives of the dissertation work.

CHAPTER TWO.
ALGORITHM DESIGN
IN THE CONTEXT OF COMPETITIVENESS AND INNOVATION

Innovative policies (Strategy) to achieve competitiveness differ substantially in a global dimension, which is predetermined by a variety of circumstances of different natures. In this regard, the innovation system of each national state is built and developed under the influence of numerous objective and subjective factors, some of the most important being the following – size and scale of the country, location and resources of the state, country policy in the field of innovation activity, level of entrepreneurial activity, development of the organizational culture within the scope of innovation activity, level of research and development (R&D), a vision for the future and a degree of participation in the international division of work. For this reason, it is necessary to present and analyse the innovative Policy (Strategy) competitiveness in the Member States (Usa, Russia and China) and the Organization (EUROPEAN UNION) with leading economies in the world.

1. Innovative policies (strategies) to achieve global competitiveness

1.1. Innovative policies (strategies) to achieve competitiveness in the US

We can draw the following conclusions on innovative strategies for achieving competitiveness in the United States of America:

The United States of America has the most developed innovation system in the world, which observes both elements of planetary leadership, but it also faces serious problems.

This country's innovation system is not created for itself, but pursues a clear and pragmatic strategic goal – increasing the competitiveness of the American economy and establishing it as the world's leading one.

Due to the federal political structure of the United States, its innovation system is deterministic by this circumstance – that is, this system has some characteristics at the federal level, second characteristics at the state level and third characteristics at the county level.

The U.S. innovation system is heavily influenced by the American entrepreneurial culture, which is built on individualism, faith in the success of anyone who works honestly and dedicatedly (the so-called American dream)," a willingness to take entrepreneurial risk, and the firm conviction that the American business system is the most competitive in the world.

It can be assumed that in the future the American innovation system will undergo significant transformations and modifications, on the impact of internal and external factors that may change it significantly.

1.2. Innovation policies (strategies) to achieve competitiveness in Russia

Academic research on innovation in the Russian Federation is relatively widely advocated, with a variety of publications found in the thematic field in question(Balabanov, 2000); (2005); (Stepanova, 2015) ; (Trifilova, 2005).

The examination of the issue of innovation policies (strategies) for achieving competitiveness in Rusia gives us reason to justify the following conclusions:

In Russia, innovation policy is brought to the highest state level as an important strategic vector of its development and is supported by the central government and other entities of the federation.

In the Russian Federation, a National Innovation System was established and functioned, with basic doctrinal documents regarding its innovation policy available and basic doctrinal documents. This is proof that the innovation policy and competitiveness of the Russian economy has been raised as the country's top strategic priority.

The realization of Russia's innovation policy faces significant problems of a different nature. The most significant of these relate to the existence of weak commercial interest on the part of enterprises in the country in the use of innovative products and services that can increase their competitiveness, as well as under-funding of research and innovation.

In the present, the Russian Federation has demonstrated a significant improvement in its own positions in leading international economic ratings related to innovation and competitiveness, with the trend upwards.

In the end, it can be concluded that, despite undoubted achievements in the field of innovation, the Russian Federation has not yet built a fully effective innovation system that will allow it to measure growth in competitiveness with the world's leading economies, but this is yet to happen.

1.3. Innovation policies (strategies) to achieve competitiveness in China

Business innovation in China and their political and business context are the subject of a large number of publications(Lu, 1998); (And, 2001) ; (Shirk, 1993), but they rarely address the specific issue of china's innovative strategies for competitiveness(Changlin, 2006); (Dodgson, 2009, pp. 2-5); (Shulin, 2013, pp. 36-54).

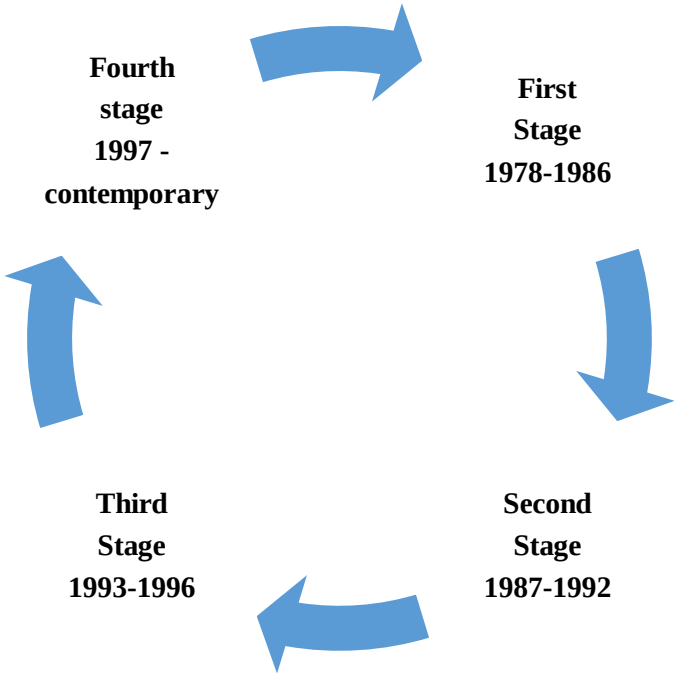


Figure 3. Edpi in the development of Chinese companies from 1978 to the present day

Source: China, 2008

China's innovation development makes it possible to draw the following conclusions on achieving competitiveness:

The development of innovative strategies to achieve competitiveness in China are inextricably linked to the historical stages (four in number) that Chinese companies go through and their transformation.

For the initial impetus of China's innovation policy is key is 1978, since until this year the huge amount of companies in the country are state or collective property. Since 1978, the People's Republic of China has undertaken large-scale reforms of its economy, which continue at an unrelenting pace and scale to this day.

China initiates and introduces in its economy important and large-scale technological initiatives that have direct and indirect importance for the development of innovative strategies to achieve competitiveness in the country.

The policy of the People's Republic of China in the field of innovation historically demonstrates a different context, political focus, evolution of the innovation system and means of financing.

We can find that China is rapidly and effectively developing its innovation policy, which inevitably leads to intensive and accelerated development of the innovation strategies used in the country. As a result, the country's economic competitiveness is growing rapidly and noticeably growing, with Chinese economy already number one in a global dimension in some respects.

1.4. Innovation policies (strategies) to achieve competitiveness in the European Union

The importance of innovative strategies for competitiveness is understood at the highest institutional level in the European Union. A European Commission publication entitled 'Policies of the European Union: Research and Innovation' (2014) notes in this regard that research and innovation contribute to Making Europe a better place to live and work. transport, digital services and a host of new products and services. The European Union (EU) plays an important role in science and technology internationally and is an undisputed leader in many areas, such as renewable energy and environmental protection.

As a result of the above, the following conclusions can be drawn on innovative strategies to achieve competitiveness in the European Union:

The European Union, in the face of its highest political representation, has an adequate understanding of the cardinal importance of innovative strategies to achieve the competitiveness of the aggregate European economy.

The European Union's main instrument for research and innovation support is the Horizon 2020 framework program. The program is backed by a significant financial resource (EUR 80 billion for the period 2014-2020).) arguing that it is able to support Europe's leadership in innovation and to increase the competitiveness of its economy.

Clusters play a key role in the innovation development of the European Union and strengthening its competitiveness. There is no generally accepted academic view of the nature of clusters and the functions they perform. However, it is generally accepted that

their importance will increase in the future, including to further strengthen the competitiveness of the European economy.

Despite its undoubted successes, the European Union's innovation policy has come under heavy academic and public criticism as the old continent begins to lag behind on key indicators relating to its market competitiveness globally. In a planetary dimension, the European Union is starting to deteriorate its innovation performance compared to its direct competitors – especially the US and, in some respects, China.

In recent years, the European Union has clearly seen a trend towards neoindustrialisation, as well as a transition to a predominantly innovative economy in order to increase competitiveness. However, the realization of this trend faces numerous problems of a different nature – political, economic, social, demographic, legal and technological.

2. Innovation policies (strategies) for achieving competitiveness in Bulgaria

Of special interest to us, in the scope of the dissertation research and the research tasks set in it are the innovative strategies for achieving competitiveness in Bulgaria. This is determined mostly by the focus of our research search, as well as on the subject of the dissertation work.

- Views of Bulgarian researchers on innovation and competitiveness;
- National innovation policy - strategic priorities and measures;
- Innovation activity and types of innovation strategies in Bulgaria.

2.1. Views of Bulgarian researchers on innovation and competitiveness

It can be found that the innovative strategies for achieving competitiveness in Bulgaria have not been detailed and extensively studied by the Bulgarian researchers. As a rule, academic research in this particular research field focuses on innovation and competitiveness, which has direct and indirect links with the question of innovation strategies for achieving competitiveness in Bulgaria.

All that has been said so far allows us to make a comparison of the opinions examined, in particular:

On the one hand, authors such as B. Georgiev, A. Asenov, C. Dilkov, H. Sirashki, G. Siderova, I. Pantaleeva, V. Kalaydzhieva focus on creating a favorable business climate and the high quality of company strategies, since the management of the innovation process is the basis for the innovation and creation of new technologies. as well as the means for their development. However, in most cases, the type of innovation strategy is not a static category, but can change in different periods of the operation of the enterprise. On the other hand, researchers such as M. Nocheva, R. Tchobanova, Yu. Stefanova, N. Ivanova bring out some problematic areas such as innovation, technological development, human resources management, while at the same time justifying the need for changes in attitudes and in strategies for scientific, technological and innovation development in the creation and implementation of new knowledge.

Summarizing what is said, we conclude that the existence of adequate innovation strategies according to the different stages of the existence and functioning of an undertaking are a prerequisite for its effective operation and its high competitiveness.

In support of what has been said so far, we are looking at national innovation policy and more important strategic documents relevant to the competitiveness of the economy and the implementation of innovative strategies.

2.2. National innovation policy – strategic priorities and measures

In 2020 Bulgaria occupies 37th position in the global ranking of the edition "Global Innovation Index" - a rise of three places compared to the previous year and a recovery of positions from 2018. Since the beginning of the programming period according to the methodology of the Global Innovation Index Bulgaria has decreased by 3% relative to the value of the synthetic indicator "Innovation Index". This is the result of the negative balance between weak growth in terms of innovation input indicators (5%) and a decrease in the results of innovation activity of 12%.

The lack of progress in recent years, especially with regard to long-term competitiveness factors such as education (51), talent development and retention (58), research and innovation (48), is also a finding in the World Competitiveness Ranking study of the Institute for Management Development. Bulgaria ranks 48th in the company of a total of 63 countries, or 22 positions within the EU. (Innovations 2020)

It is therefore necessary to focus on the National Innovation Policy, which maintains the necessary conditions for promoting and improving the innovation potential of Bulgarian business units carrying out innovation activities and their economic development, which is a prerequisite for creating a sustainable and competitive economy.

In conclusion from what has been said so far, we will note that these strategic objectives and priorities in the strategic documents considered relevant to competitiveness (National Development Programme Bulgaria: 2020; Operational Programme "Innovation and Competitiveness" 2014-2020; National Strategy for the Promotion of Small and Medium-sized Enterprises 2014-2020; Innovation Strategy for Smart Specialization of the Republic of Bulgaria until 2020) , can be identified as the main driver in increasing innovation activity and implementing appropriate innovative solutions, which in turn contributes to the prosperity and competitiveness of both the Bulgarian economy and any enterprise as part of the national business system offering innovative products or services.

2.3. Innovation activities and types of innovation strategies in Bulgaria

The innovation activity in the Republic of Bulgaria, according to the National Statistical Institute (NSI), consists in the following concept "innovation activities include all development, financial and commercial activities carried out by the enterprise for the purpose of introducing innovation." (e) the application of a new or significantly improved product or process, a new marketing method, a new organisational method in business practices, in the organisation of the workplace or in external relations. Innovation is based on the results of new technological developments, new combinations of existing technologies or on the use of knowledge acquired by the enterprise" (NSI, 2017, p. 6).

The share of employees in innovative enterprises amounts to 59.0% of employees in all enterprises (See Tablitsa 4).

Table 4.

Innovation activity in the period 2014-2016 by economic sectors and size of enterprises

%

	Innovative enterprises	Turnover of innovative enterprises	Employees in innovative enterprises
Total	27.2	59.8	59.0
Services	22.1	47.2	54.1
10-49 employees	20.5	22.9	23.3
50-249 employees	44.3	50.1	48.6
250 and more employees	81.9	90.0	87.2

Source: NSI, 2017

Table 5.

Innovative activity in the period 2016-2018 by economic sectors and size of enterprises

	Innovative enterprises	Turnover of innovative enterprises	Employees in innovative enterprises
Total	30.1	57.0	57.8
Services	24.6	44.9	52.5
10-49 employees	24.2	24.0	26.8
50-249 employees	46.8	47.4	50.1
250 and more employees	76.1	83.4	81.1

Source:https://www.nsi.bg/sites/default/files/files/pressreleases/NIRD_Innovation2018_4RCZQ1O.pdf

Based on the data received on the innovation activity in Bulgaria, we find the following:

The majority of enterprises in Bulgaria do not develop an innovation activity.

Although innovative enterprises in Bulgaria do not prevail, their turnover is significantly higher than that of non-innovative enterprises.

The biggest innovators in Bulgaria are the big enterprises (250 or more employees) – 81.9%

In the period 2014-2016 the highest is the innovation activity of enterprises, which are engaged in industry - 31.6%, and in the next programming period 2016-2018 it increased by 3.7 points.

In the context of the Covid-19 crisis, there are no significant differences regarding the magnitude of the different types of innovation in Bulgarian enterprises.

In relation to the innovative policies (strategies) examined and analysed around the world and in our country, we can note that they differ significantly from each other.

The innovation policy in Bulgaria highlights some problematic areas consisting in technological development, human resources management and the need for changes in attitudes for scientific, technological and innovation development, in creating new knowledge for the achievement of a favorable business climate and the promotion of resource and innovative activity.

By comparison, global competitiveness has been raised as a leading strategic priority consisting of the introduction of large-scale and important technological initiatives, which in turn leads to a continuous and noticeable increase in economic competitiveness, which also defines them as some of the most highly developed innovation systems.

It follows that global innovation policies are characterised by higher efficiency as they are a structural determinant influencing entrepreneurial culture and entrepreneurial risk, which determines their leadership in many respects.

Effective innovation policies implemented at global level are good practice for the management of the innovation process in Bulgaria. In order to ensure a favourable business climate, innovation strategies are important, which by their nature and content promote innovation activity and have a direct impact on the competitiveness of the organisation and its effective results. In this regard, we need to create an algorithm to fix the more substantial innovation strategies that contribute to improving the industry of Bulgarian enterprises and their organizational competitiveness.

3. Drawing up an algorithm in the context of competitiveness and innovation policies (strategies)

In the absence of sufficient developments in this problem field, it is necessary for the author to design an algorithm for the purposes of this study, consisting of several main stages.

3.1. Design of an algorithm for competitiveness research by implementing innovative strategies

The proposed algorithm in Figure 4 aims to track more substantial innovation strategies through which businesses today can improve and improve their competitiveness. Based on the objective results obtained, we present concrete opportunities for improving organizational competitiveness, which is a good technique not only for the companies examined, but also for the business practice and its competitive results.

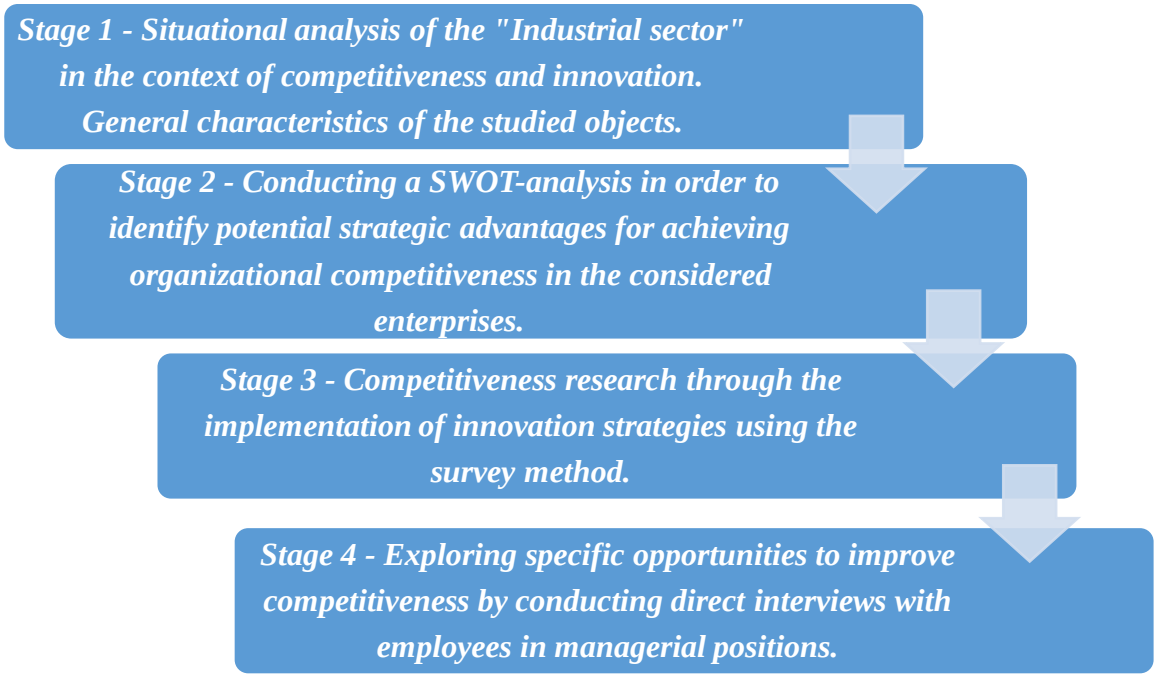


Figure 4. Competitiveness testing algorithm by implementing innovative strategies

Source: Author's

3.2. Stages of approbation of the author's algorithm

The first stage analyses the current state of the industrial sector and presents the enterprises to be surveyed.

The choice of this sector is motivated by the data over the last few years, which show that it is the processing industry sector that is a vital sector for the Bulgarian economy, as it provides a large number of employees and a positive financial result. For this reason, it is necessary that the enterprises operating there constantly develop and improve in relation to the modern business environment.

For this purpose, three enterprises that operate in the Industry and in particular: "Bio Fresh" Ltd. is set up in the perfume and cosmetic industry; Bultek Ltd. operates in the field of metalworking, plastic processing and industrial installation, while Elplast Ltd. operates in the production of polyethylene packaging (see Fig. 5).

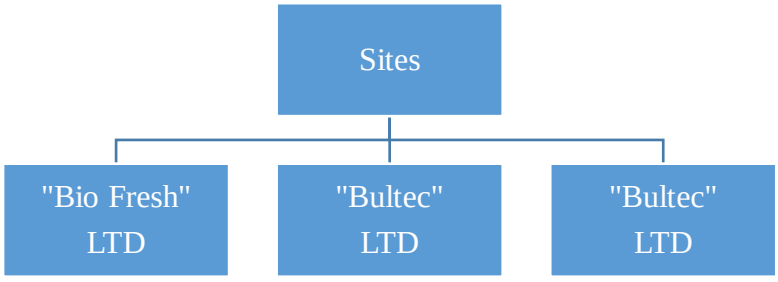


Figure 5. Objects of research in the dissertation

Source: Author's

At the second stage, we conduct a SWOT analysis in order to identify potential strategic advantages to achieve organizational competitiveness in the spoiled enterprises.

At the third stage, with the help of the Survey Method, we examine the competitiveness of the organization.

At the fourth stage, we explore the specific possibilities for improving competitiveness by conducting direct interviews with employees in management positions.

The sourcing of this secondary information enables us to complement the survey conducted by reflecting the key opportunities for improving competitiveness.

CONCLUSIONS TO CHAPTER TWO

The following conclusions can be drawn from chapter two "Designing an algorithm in the context of competitiveness and innovation":

In this chapter, we look at innovation activity in countries (US, Russia, China) and supranational organisations (EU) with leading economies in the world, from which we draw more important similarities and differences in their innovative policy on achieving organisational competitiveness. innovation potential and innovation strategies, which are a specific factor for the survival of business organisations in a highly changing business environment where competitive behaviour in most cases determines the achievement and increase of competitiveness over a long period of time.

At the next stage, the more important views of Bulgarian researchers on innovation and competitiveness are systematized and analyzed, from which it follows that the different stages of the existence and functioning of the enterprise require an adequate and company-specific innovation strategy providing the necessary conditions for high and effective competitiveness.

With regard to the implementation of innovation strategies, strategic objectives and priorities within the framework of strategic documents relevant to competitiveness are of interest. They are identified as a key factor that has a beneficial effect on innovation activity and appropriate innovation decisions, which is a prerequisite for increasing the innovation potential relevant to the supply of innovative products or services at national and organisational level. In support of what has been said so far, the innovation activity in Bulgaria is also analyzed as a means of achieving organizational competitiveness.

In order to identify more important innovation strategies that predetermine the improvement of competitiveness, we design an algorithm whose main objective is to

determine the strategic advantages of modern industrial enterprises and to bring out appropriate innovation opportunities to achieve competitive results.

CHAPTER THREE.
EXPLORING THE COMPETITIVENESS OF INDUSTRIAL COMPANIES BY IMPLEMENTING INNOVATIVE STRATEGIES

The topicality and importance of our research scientific problem in the third chapter of the dissertation work – achieving the competitiveness of companies in the industrial sector by implementing innovative strategies is not in doubt, and this is even evident without being specifically studied.

In general, competitiveness manages to accelerate with the help of some of the more important innovation elements – bio-economy, circular economy and industrial symbiosis, contributing together to the establishment of a strong link between innovation potential and labour productivity at European, national and organisational level.

Description of companies surveyed

The objects of research in the dissertation are three commercial companies that develop their activities on the theory of the Republic of Bulgaria:

- "Bio Fresh" Ltd;
- "Bultek" Ltd.;
- "Elplast" Ltd.

SWOT - the analysis helps to choose a strategy that is oriented towards maximizing the use of the strengths of the organization and the capabilities of the environment at the same time as minimizing its weaknesses and external threats. (Kurteva & Lambovska,

Determination of the current results of the SWOT analysis of the organization for an annual period, 2005)

2.2. SWOT analysis of “Bultek” Ltd.

2.3. SWOT analysis of "Elplast" Ltd.

The SWOT analysis carried out in the three commercial companies: “Bio Fresh” Ltd., “Bultek” Ltd. and “Elplast” Ltd. gives us reason to formulate the following generalized conclusions as follows:

From the data thus obtained, we find that in all three enterprises there are strong common features in terms of the combination: "threat strengths", from which we predetermine the more important potential strategic advantages consisting in the following – the presence of highly qualified staff, good commercial reputation , growth potential and increase in income, which proves to be a prerequisite for making adequate innovative solutions and offering new and innovative products in mind unfair competition which could significantly limit their presence on the market.

In accordance with the survey conducted in the three commercial companies: “Bio Fresh” Ltd., “Bultek” Ltd. and “Elplast” Ltd, we can formulate the following summaries:

It is observed in all three sites surveyed that there is a link between the innovation strategies and the competitiveness of the organization in general (66, 67% -100%).

In the three survey sites prevailed the view that the innovative climate (background) in the Republic of Bulgaria had an impact on the competitiveness of the three sites surveyed.

The opinion among the respondents (58.33% - 80%) that the innovation strategies used contributed to increasing their competitiveness.

The innovation successfully introduced in the three sites studied differs significantly, in practice in "Bio Fresh" Ltd. this is the marketing one, in "Bultek" Ltd. is the process and in "Elplast" Ltd. – the product.

It is unanimous among the respondents in management positions that the intermediate innovation strategy is the most suitable for increasing competitiveness.

CONCLUSIONS TO CHAPTER THREE

The following conclusions can be drawn from chapter three "Exploring the competitiveness of industrial companies by implementing innovative strategies":

The third chapter of the dissertation work is a logical continuation of the first two chapters, with the main research thesis being verifiable through an author's study. "Bultek" Ltd.; "Elplast" Ltd.

In relation to the formulated objectives and tasks of the dissertation, the author adheres to a specific logic and algorithm of empirical verification of the main research thesis.

The survey subjects are representatives of the industrial sector (industry). "Bio Fresh" Ltd. is situational in the perfume and cosmetic industry; Bultek Ltd. operates in the field of metalworking, plastic processing and industrial installation, while Elplast Ltd. operates in the production of polyethylene packaging.

The SWOT analysis conducted in trithe companies allows us to highlight strengths, weaknesses, opportunities and threats, on the basis of which we gain a fuller picture of their core activity, which determines the existence of an appropriate innovation strategy.

The competitiveness survey achieved by implementing innovative strategies is carried out in the three survey sites using the Survey Method. Employees in management positions with an identical questionnaire have been studied in order to achieve comparability of the data received.

The research carried out in the three commercial companies shows that there is a link between the innovation strategies and the competitiveness of the organisation in general. significantly differs. The results thus obtained form the view that the intermediate innovation strategy is best suited to increasing competitiveness.

As a result of the empirical study, we highlight the more important opportunities to increase competitiveness by attaching innovation strategies by the method of the semi-

standardized interview. Both the interview and the semi-standard interview are carried out in the three sites surveyed. different priorities for the measures and instruments to be implemented in order to increase the competitiveness of companies through the implementation of innovative strategies, which is essentially taking into account the immediate link between increasing competitiveness and the use of innovative strategies.

CONCLUSION

In conclusion, we should draw the following main conclusions and summaries:

First, in the development we analyzed and systematized the current dimensions for increasing competitiveness by implementing innovative strategies following the example of companies in the industrial sector.

Secondly, we can take into account that the main research objective, as well as the theoretic-research and practical-applied tasks, are fulfilled.

Thirdly, following the research carried out and the results obtained, we can conclude that the main research hypothesis – "if the economic organizations working in the industrial sector do not implement innovative strategies, then they cannot achieve high competitiveness" has been successfully demonstrated.

Fourthly, we found that there are unexplored areas of a theoretical and practical nature in the problem field examined that need further systematic and in-depth future studies.

The dissertation carried out the following main tasks of a **theoretic-research nature:**

1. We analysed the current state of the scientific problem and synthesized guidelines for achieving competitiveness by implementing innovative strategies.

2. We have identified some unresolved and scientifically controversial theoretical issues relating to competitiveness through the implementation of innovative strategies.

3. We have summarised the practical aspect of taking action to achieve competitiveness by implementing innovative strategies.

4. On the basis of the empirical study carried out, we have identified the main practical problems related to achieving competitiveness by implementing innovative strategies in the industrial sector and made recommendations to business practice.

The solved research tasks **of a practical nature are** as follows:

1. We have identified and summarised the practical aspect of taking action to achieve competitiveness through the implementation of innovative strategies.

2. We studied and analyzed some of the main practical problems related to achieving competitiveness by implementing innovative strategies in the industrial sector.

3. On the basis of the empirical study conducted, we have brought key opportunities to business practice, including to researchers, managers, specialists on achieving and enhancing competitiveness by implementing innovative strategies.

In this regard, the author of the dissertation is suggesting and forecasting that from now on the scientific and practical problem of achieving competitiveness by implementing innovative strategies following the example of companies in the industrial sector will be demonstrated moderate interest. Perhaps the biggest development will be the problem of measuring and verifying the achievement of competitiveness by implementing innovative strategies.

We also see **the following possible directions for the application of the dissertation**:

First, development can be used by both researchers and active managers who are professionally engaged in achieving competitiveness by implementing innovative strategies in the industry sector.

Secondly, the results of the current work are applicable in the field of innovation and competitiveness training following relevant transformations and transformations.

GUIDELINES FOR FUTURE RESEARCH ON THE SUBJECT OF THE DISSERTATION

From now on, a moderate interest will be demonstrated towards the scientific and practical problem of competitiveness by implementing innovative strategies, following the example of companies in the industrial sector. Perhaps the strongest development will be the problem of measuring and verifying the achievement of competitiveness by implementing innovative strategies.

It can be argued that, from a scientific point of view, the theme of achieving competitiveness by implementing innovative strategies within the industrial sector is relatively poorly developed. There are relatively few academic publications on the issue, and research related to the methodological, methodological and scientific and practical aspects of the topic is particularly scarce. It cannot be argued with conviction that the scientific problem of achieving competitiveness by implementing innovative strategies within the reach of the industrial sector is central to modern scientific discussions, but scientific controversies in this problem field are undoubtedly observed, with the trend upwards.

REFERENCE TO SCIENTIFIC CONTRIBUTIONS

The theoretical and practical significance of work and its main contributions is expressed as follows:

1. We analysed the current state of the scientific problem and synthesized guidelines for achieving competitiveness by implementing innovative strategies.

2. We have identified some unresolved and scientifically controversial theoretical issues relating to competitiveness through the implementation of innovative strategies.

3. We have summarised the practical aspect of taking action to achieve competitiveness by implementing innovative strategies.

4. On the basis of the empirical study carried out, we have identified the main practical problems related to achieving competitiveness by implementing innovative strategies in the industrial sector and made recommendations to business practice.

LIST OF PUBLICATIONS ON THE SUBJECT OF THE DISSERTATION WORK

REPORTS:

1. **Malinov**, P. Leadership in the company. *Compendium of summaries of scientific discussion on "Management - Reality* and Future", Svishtov 13-14 October 2017 AI "Tsenov", p. 123.

ARTICLES:

1. **Malinov, P.,** Models and Strategies of Sustainability. // *Annual Almanac Research of PhD students*, Svishtov: A. Tsenov, cn. 14, 2018, p. 477-489, ISSN:1313-6542.

2. **Malinov**, **P**. Conceptual importance of innovation and specificity of innovation strategies. // Annual *Almanac "Research of PhD students"*, Svishtov: A. Tsenov, p. 16, 2020, p. 599-614, ISSN:1313-6542.

DECLARATION OF ORIGINALITY OF THE DISSERTATION WORK

In connection with the conduct of a procedure for obtaining an educational and scientific degree "Doctor", as author of the dissertation on "Achieving competitiveness by implementing innovative strategies (following the example of companies in the industrial sector)", I declare that:

1. The dissertation work shall be authentic and the results and contributions achieved therein shall be original and shall not be borrowed from foreign studies and publications in which the author does not participate.

2. The information provided by the author in the form of copies of documents and publications, personally compiled references, etc. objective truth.

3. The results obtained, described and/or published by other authors shall be duly and in detail mentioned in the bibliography.

27.04.2022 Declarator…….....

Svishtov Phd. Pencho Malinov