



UNIVERSITY OF NATIONAL AND WORLD ECONOMY

REVIEW

**for the acquisition of an educational and scientific degree "doctor"
at the Paisii Hilendarski University of Plovdiv**

Reviewer: Assoc. Prof. Vera Dimitrova Pirimova, PhD

Scientific specialty: Political Economy,
University of National and World Economy

Regarding: dissertation for the acquisition of an educational and scientific degree
"doctor"

in: field of higher education: Social, economic and law sciences
professional area: 3.8. Economics
Ph.D Programme: "History of economic sciences"

Author of the dissertation: PhD student **Aygun Naji Ertürk-Mincheva**

Dissertation topic: "The Concept of Homo Economicus in Richard Thaler's Behavioral Economics"

Research supervisor: Prof. Dr. Plamen Dimitrov Chipev, Plovdiv University "Paisii Hilendarski"

1. General description of the presented materials

By order No. PD-21-452 dated 01.03.2023 of the Rector of the Plovdiv University "Paisii Hilendarski" (PU), I have been appointed as a member of the scientific jury to ensure a procedure for the defense of a dissertation work on the topic "The concept of Homo Economicus in the behavioral economics of Richard Thaler" for the acquisition of the educational and scientific degree "doctor" in the field of higher education "Social, economic and law sciences", professional area 3.8. Economics, doctoral program "History of Economic Sciences". The author of the dissertation is Aygun Naji Ertürk-Mincheva - a full-time doctoral student at the Department of Economic Sciences, supervised by Prof. Dr. Plamen Dimitrov Chipev, Paisii Hilendarski University of Plovdiv.

The set of paper materials submitted by doctoral student Aygun Naji Ertürk-Mincheva is in accordance with Article 36 (1) of the Regulations for the Development of the Academic Staff of the PU, and includes the following documents:

- a request to the Rector of the PU to disclose the procedure for the defense of a dissertation work;
- curriculum vitae in European format;
- minutes from the department council related to reporting the readiness to open the procedure and preliminary discussion of the dissertation work;
- dissertation work;
- abstract;
- a list of scientific publications on the subject of the dissertation;
- copies of scientific publications;
- list of noticed citations (none);
- declaration of originality and authenticity of the attached documents;
- certificate of compliance with the National minimum requirements for the educational and scientific degree "doctor".

The doctoral student has attached a list of a total 6 (six) publications on the subject of the dissertation, including 1 (one) scientific article and 5 (five) reports at scientific conferences. They have been realized in the last few years, and 2 (two) of them are in print. The submitted publications exceed the minimum national requirements.

2. Brief biographical data for a doctoral student

Doctoral student Aygun Ertürk-Mincheva graduated from the University of Plovdiv, majoring in the Faculty of Economic and Social Sciences. She graduated with a bachelor's degree in "International Economic Relations" and a master's degree in "International Trade".

Her professional path began at the Consulate General of the Republic of Turkey in the city of Plovdiv, where she worked first as an intern and later as a secretary. For two years (2017-2018), she worked as a translator of fiction at the "Letera" publishing house.

In the spring of 2019, Aygun Ertürk-Mincheva was enrolled as a full-time doctoral student, and since the fall of the same year, she has been working as an assistant at the Department of Economic Sciences, Plovdiv University.

3. Actuality of the topic and appropriateness of the set goals and tasks

The topicality is indisputable for the topic, which is very well chosen and is in the context of important scientific problems and discussions, as well as the historical-theoretical focus of the doctoral program.

I fully share the opinion of doctoral student Ertürk-Mincheva, who thoroughly explains the relevance in several aspects. First, related to the ongoing debate in academic circles about the validity of the traditional model of the behavior of economic agents. On this occasion, she emphasizes that she accepts the concepts and experiments of Richard Thaler as the beginning of the New Behavioral Economics. Secondly, the need to go deeper into the characteristic features of the economic individual at the modern stage stands out. This will allow, according to her, to achieve a better understanding of the concept of homo economicus and its role in solving problems arising during crises in the economy. In addition, the doctoral student rightly argues with the increased interest in the tool of behavioral economics for building policies based on the changed economic agent, for applying the toolkit developed by R. Thaler of the so-called "nudge".

With these several aspects, doctoral student Ertürk-Mincheva skillfully connects the main goal, three sub-goals and six decomposed tasks of the dissertation research, and they stand out as expedient. They make it possible to highlight the main reference points of her analysis, which she follows consistently and steadfastly in the exposition.

4. Knowing the problem

In his dissertation, doctoral student Ertürk-Mincheva demonstrated a very good knowledge of the researched problem. Categorical proof of this is the well-thought-out and logical structure of the exhibition, the applied approaches in the development of the separate parts of the study. More importantly, the analysis is very thorough, although it has challenged the PhD student to explore a complex problem that has interdisciplinary dimensions. For this, the familiarization and careful study of a wide range of scientific literary sources - a total of 313 publications, in Bulgarian and English - contributed. In the studied sources, 30 publications are by R. Thaler, in which he developed his ideas in many different aspects. This has allowed the doctoral student to interpret creatively, to carry out a multifaceted and critical analysis of a set of earlier (classical) and new scientific concepts and concepts, incl. those of R. Thaler, to refract them through the prism of her own specific vision, to adapt them to own theses. The high research potential and the creative approach of the doctoral student find their strongest expression in several directions of analysis, which also have the character of scientific contributions.

5. Research methodology

Doctoral student Ertürk-Mincheva fully adapted the applied research methodology to the possibilities of achieving the main goal and more specific tasks, as well as to the direction of the doctoral program. It is standard and covers the approaches, methods and means of analysis and synthesis, induction and deduction, with elements of institutional, critical, comparative and documentary analysis. The doctoral student has presented the more important step-by-step results and summaries in independently and very well constructed diagrams and tables - e.g. the development of the neoclassical features of homo economicus (on p. 52), the heterodox characteristics of homo economicus change (on p. 85), the evolutionary tree of homo economicus (on p. 88), the comparative features of traditional and behavioral economics (on p. 96) and others. They contribute to greater overview and show serious attention, thoroughness in focusing the analysis on individual problems.

6. Characteristic and dissertation evaluation

The dissertation work of doctoral student Ertürk-Mincheva has a large volume of a total of 264 standard pages. The exposition is developed on 236 pages, consists of the main text, 8 tables and 11 figures. The total number of pages also includes lists of abbreviations, figures and tables, 2 appendices (5 pages) and a bibliography (15 pages) with a total of 313 sources, of which 49 are in Cyrillic and 264 are in Latin.

The dissertation has a traditional and appropriate structure of an introduction, three chapters and a conclusion.

The **introduction** is short (7 pages) but contains all the necessary components. In it, the doctoral student clarified the relevance of the research in three mutually complementary aspects, correctly defined the object and subject of the research (on p.10), the main research thesis and three hypotheses, the main goal, which she specified through three sub-goals and 6 decomposed tasks (on pp. 10-11). Here she has also briefly outlined the applied methodology

and several limitations of the analysis, succinctly expressed the leading problems of the analysis separately in each of the three chapters.

The goal and tasks correspond to the subject and content of the dissertation. The thesis and hypotheses have been successfully proven.

The **first chapter** introduces us to the emergence of the idea, the affirmation and the initial foundations of the critique of the concept of homo economicus. The doctoral student's analysis here is both wide-ranging and extremely thorough, filled with well-expressed critical thinking and evaluation, numerous parallels and comparative perspectives. Systematism and excellent knowledge of well-established theories and scientific schools are shown, which are evident in the skillful interpretation of concepts, the highlighting of their continuity and originality in a historical-logical context.

It impresses us that doctoral student Ertürk-Mincheva knows in depth and skillfully presents the historical roots and evolution of the concept. According to her, at its beginning were ideas of Aristotle, later of A. Smith and J. St. Mill. They were supplemented and further developed in the views of authoritative representatives of the marginal approach, of the Cambridge and Lausanne schools, by Morgenstern and von Neumann, M. Friedman, L. Savage and G. Becker (as a newer stage of neoclassical ideas), and others. On their basis, the doctoral student reveals and summarizes the main features of the economic man, builds a "bridge between rationality and irrationality", reaches the conclusion that "Neoclassical development clearly imposes the concept of homo economicus in science as a representative image of the individual in economic research." (p. 51).

In multifaceted aspects and with a deep analytical approach, the doctoral student examines the main authors and criticisms of the concept. The critical benchmarks and shortcomings indicated by representatives of the historical school, institutionalism, neoliberalism, the specific views of J. Schumpeter and H. Simon, heterodox theories (mainly the economics of transaction costs and the new institutional economy), evolutionary economics are systematized.

All this allows the doctoral student to reveal and emphasize the connections and upgrading of knowledge, to compare and bring out the similarities and differences between the initial idea of the economic man, affirmed by V. Pareto, the "acting man" from the description of L. Mises, the figure of the entrepreneur in the theories of J. Schumpeter, the "administrative man" of H. Simon's description and the understanding of "bounded rationality", the "contractual man" of O. Williamson.

At each separate stage of the development of the analysis in the first chapter, the doctoral student reaches correct and important conclusions, marks points of contact with R. Thaler's concepts, as well as with his prediction that "homo economicus" will evolve into "homo sapiens".

The deep insight into the scientific work of the cited authors and theories is also evident in the very convincing summary of the first chapter. In it, the doctoral student was able to synthesize the added characteristics and elements of changes in the concept, she systematized an evolutionary tree of homo economicus (presented graphically in a diagram on p. 88).

The rich and balanced content and volume of separate points, paragraphs and issues; the efforts and skills to adhere primarily to the economic angles of this difficult and interdisciplinary problem, deserve admiration. Throughout the first chapter a capacity for

purposefulness is demonstrated, focusing the analysis on the essence, but without ignoring or underestimating the more important peripheral details.

The **second chapter** is a well-thought-out and logical continuation of the analysis and historical approach, with two main emphases - they are placed on the further development of the concept of homo economicus in behavioral economics in general and in R. Thaler's research.

The comparative analysis of traditional and behavioral economics, the identified connections and complex interweaving of behavioral economics with cognitive and mathematical psychology are substantial and of high scientific value. Well systematized by the doctoral student are the earlier ideas and directions for a change in the concept related to the conceptions of J. Catona, Am. Sen, Vernon Smith, D. Kahneman, and A. Tversky.

From here, she managed to smoothly enter and carry out a creative interpretation of the ideas developed as a result of the scientific collaboration of R. Thaler, D. Kahneman and A. Tversky. She argues that these relate to dualistic thinking and approach, to the "heuristics and biases" approach, and to prospect theory. It is these that the doctoral student accepts and examines in more detail as key points in the construction of the foundations of behavioral economics.

The more mature and newer stage of behavioral economics the doctoral student connects with more specific contributions of R. Thaler. It is well argued and emphasized that one of R. Thaler's contributions consists in supplementing and refining heuristics and biases with the so-called "abnormalities". By selecting and examining R. Thaler's more important "behavioral anomalies," she expresses her view of R. Thaler's results in the application of cognitive psychology to find a solution to errors in the choices of individuals. She also clearly highlights the contributions of R. Thaler in the field of perspective theory.

To express other achievements and merits of R. Thaler, extensive analysis was carried out of some of the theories developed by him, which are a behavioral theory of consumer choice; economic theory of self-control; transactional utility theory; theory of justice; behavioral life cycle theory. Evidence is also given for the views of a number of his followers. As a summary, an author's periodization of R. Thaler's theories and contributions has been compiled. It is formed in a table (on p. 148), which reflects the theories developed by R. Thaler and the new categories introduced in each of them.

The doctoral student devoted special attention to R. Thaler's methodology for bringing the economic to the real person closer. It is logically bound up with notions of the quasi-rational agent, "homo psychologicus," and the distinction of "econes" from people.

The performed multispectral analysis gives reasons for the doctoral student to reach a correct general conclusion about R. Thaler's contribution to behavioral economics. According to her, it finds expression above all in "documenting the anomalies, i.e. the empirical facts that the traditional model cannot deal with; developing a new generation of models with realistic psychological assumptions; facilitating individuals to make better economic decisions; accelerating the development of behavioral economics". (p. 158).

In the **third chapter**, the analysis is expanded with practical applications of behavioral economics and more specifically with "nudging" as a process of supporting individual decisions. Within the policy application of this approach, policies offering the right incentive or barrier are suggested and implemented. Particular attention is paid to the social, psychological, and economic factors that influence what people think and do.

The essence and features of nudging, which the doctoral student derives from the applied alternative approaches and understandings, are explained in various ways. It relies mainly on the approach of heuristics and biases, and in some cases the heuristics themselves serve as nudges. In the role of the most important methods of nudging, the setting of a default option, the use of wording and the influence of society are considered.

Different types of nudges, distinguished based on specific criteria, are thoroughly interpreted. The nudge categories are summarized in a table on page 174. They help distinguish nudges from the commonly used „boosts“. In fact, boosts aim to change the competence, not the behavior of people in making better choices.

For greater completeness of the analysis in the third chapter, the further outlined features of the philosophy of pushing in the mechanisms of libertarian paternalism contribute; of the architecture of choice through the approach of "building a road map", "the wheel of behavior change" and other methods.

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More clearly focused on the applied aspects are the potential areas, with opportunities for application of the nudges. In them, the doctoral student appropriately includes the directions of behavioral finance (which she compares with traditional financial models), behavioral economics of development and the environment. In their distinguishable authorial reading, the doctoral student follows two leading lines – the changes in the concept of "homo economicus" and the further development of R. Thaler's concepts.

The logical conclusion of the third chapter is the concrete policies of the "nudge", the steps, features and results of their application in the practice of different countries and international institutions. Priority is given to nudges to protect consumer rights in the digital space, to improve health services, sustainability, more precise taxation, financial policies, in the field of education and public administration, etc. The PhD student substantiates proposals from the behavioral economics toolkit to support some of these policies in Bulgaria and the EU, defining their goals, behavioral problems and tools for realizing the goals.

In the **conclusion**, the obtained results, the more important conclusions and generalizations achieved in the separate parts and in the dissertation research as a whole are presented. They create a clear idea of the successfully proven theses and hypotheses, the solved tasks of the research.

For each chapter, the doctoral student has composed an introduction and a summary, which are an expression of well-thought-out logic, give completeness and interdependence to the separate parts of the analysis.

It is necessary to emphasize that the exposition is distinguished by a clear, understandable, scientifically sound style and language (except for some frequently used repeated identical words and expressions). There are demonstrated good command and correct application of scientific terminology.

7. Contributions and significance of the development for science and practice

In the dissertation, contributions have been achieved simultaneously in the three required and interrelated directions - in theoretical, methodological and applied aspects. The doctoral student has correctly divided them into two generalized groups - contributions of a theoretical-methodological and theoretical-applied nature.

In my opinion, the following have a contributing character in the theoretical-methodological aspect: 1.) the in-depth critical analysis with emphasis on the continuity and originality of concepts, as well as on the criticism of the concept of "homo economicus"; 2.) the constructed and convincingly argued evolutionary tree of the development of the category "homo economicus"; 3.) the summaries, placed at the basis of a compiled periodization of the contributions of R. Thaler in behavioral economics; 4.) the generalized and detailed elements of the change of the concept of "homo economicus" in R. Thaler's behavioral economics through the quasi-rational agent, "homo psychologicus" and "homo sapiens", which are a response to the more important objections to the concept for "homo economicus".

Contributions from the second group are achieved in the third chapter, in which applied aspects are advocated. Theoretical-applied nature have the contributions related to: 1.) the systematization of the nudging application technology (the architecture of choice), incl. through the approach of "building a road map" and "the wheel of behavior change"; 2.) the identified and very well-founded problem points and limitations, as well as main areas with opportunities for implementing nudge policies.

The contributions correspond to the scientific results and achievements in the dissertation, they definitely enrich scientific knowledge and are the personal work and merit of the doctoral student. They meet the necessary requirements and criteria for acquiring the educational and scientific degree "doctor".

8. Evaluation of publications on the dissertation work

Doctoral student Ertürk-Mincheva fulfills and even exceeds the minimum national requirements for the necessary number of scientific publications.

In connection with the defense of the dissertation, she presented a total of 6 (six) publications. They include 1 (one) scientific article and 5 (five) reports at scientific conferences. Of these, 3 (three) publications are independent and the other 3 (three) are co-authored (two of them are jointly with the scientific supervisor Prof. Dr. Plamen Chipev). The publications were realized in 2020-2023 and 2 (two) of them are still in print. All publications are in Bulgarian, in non-refereed editions. There are no scientific articles in foreign journals, as well as reports at conferences abroad.

Various aspects of the issues investigated in the dissertation are reflected in the publications. The reports were presented at scientific conferences of various universities in the country, in Plovdiv, Sofia and Varna, as well as at the Institute for Economic Research of the BAS. On this basis, it can be concluded that the results of the conducted research have received a certain recognition and evaluation from the scientific community in Bulgaria.

9. Personal participation of the doctoral student

Dissertation research was carried out independently, the results, conclusions and contributions achieved in it are the personal work of doctoral student Ertürk-Mincheva. The theoretical concepts used are correctly interpreted and faithfully quoted. They are subjected to a thorough critical analysis in which the doctoral student's own theses, positions, summaries, and contributions are highlighted.

10. Author's abstract

The abstract meets the requirements. It is developed in a total volume of 32 pages and reflects the most important results of the dissertation research. To the extent that the total volume of the dissertation work is very large (the exposition is developed on 242 pages), the scientific results, summaries and contributions of the author are much more.

At the end of the abstract, a report on the obtained results and contributions, a list of realized publications on the topic of the dissertation is presented. They correspond to the minimum national requirements and the Rules for the Application of the Law on the Development of the Academic Staff in the Republic of Bulgaria.

11. Critical remarks, recommendations, and questions

After carefully familiarizing myself with the dissertation work of doctoral student Ertürk-Mincheva, I came to the conviction that there are no significant mistakes, omissions, or contradictions made in it.

I will make only two remarks that do not affect the entirely positive impression and indisputable merits of the dissertation work:

1.) In my opinion, in all three chapters there are opportunities for some shortening of texts and hence for optimizing the volume of the chapters and the entire dissertation. For example, some interpretations of concepts are too long and detailed, there are separate sentences/explanations that are the same or similar in meaning, peripheral issues are touched on in some places, the introductions and summaries for each chapter or for some points and paragraphs are long, and they introduce certain elements of repetition. A recommended approach, but not implemented here, would be to move some of the cluttered detail into footnotes.

2.) With a recommendation for future publications, I would note that it would be good to apply more statistical data in the third chapter, albeit a brief descriptive analysis. This would lead to more serious arguments in defense of the ideas for the specific policies. Now there is too little data reflected in only one place (on pp. 221-222), so it would have been better to have it in a footnote rather than in the main text.

I would like to ask the doctoral student a **question**, on which she can express and justify her opinion (with appropriate statistical data) in the defense:

1.) Are there real opportunities to apply the behavioral nudge approach at the government level in Bulgaria? In which more specific areas (one or two as an example) and corresponding policies?

12. Personal impressions

I do not know doctoral student Ertürk-Mincheva personally and I have no impressions of her as a person and specialist, of her work as a teacher and assistant. I became familiar with her research abilities based on her publications, developed, and submitted dissertation work. They show that the doctoral student Aygun Naji Ertürk-Mincheva has in-depth theoretical knowledge, research abilities and professional skills in the scientific specialty "History of Economic Sciences" by demonstrating the qualities and skills for independent conduct of scientific research.

13. Recommendations for future use of dissertation contributions and results

The theoretical-methodological contributions have the potential to be applied both in the field of science and scientific research, as well as in the teaching of bachelor's, master's and doctoral students in the field of behavioral economics.

Theoretical-applied contributions can be applied in the development of the main goals, tools, and methods of more effective policies at the state level.

Based on the more important results, contributions, and problems, I recommend that PhD student Ertürk-Mincheva develop and publish more scientific articles in Bulgarian and foreign indexed journals in the future.

CONCLUSION

The dissertation work of doctoral student Aygun Naji Ertürk-Mincheva represents an independent and conscientiously conducted, large-scale and completed scientific study. The main thesis and hypotheses have been successfully proven, the research objective and tasks have been fulfilled.

The dissertation contains scientific results that represent an original contribution to science and meet the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for the Implementation of the ZRASRB and the relevant Regulations of PU "Paisii Hilendarski".

Due to the above, I confidently give my positive assessment of the conducted research presented by the above-reviewed dissertation work on the topic "The Concept of Homo Economicus in the Behavioral Economics of Richard Thaler", abstract, achieved results and contributions, and I propose to the honorable scientific jury to award the educational and scientific degree "doctor" to Aygun Naji Ertürk-Mincheva in the field of higher education: Social, economic and law sciences, professional direction 3.8. Economics, PhD program "History of Economic Sciences".

22.04.2023
Sofia

Signature:.....
(Assoc. Prof. Vera Pirimova, PhD)