



OPINION

on dissertation work for awarding the educational and scientific degree „**Doctor**“ in scope of higher education Social, economic and legal sciences professional field, Administration and management, scientific specialty Application of computing technology in economics

Author of the thesis: Neda Venelinova Chehlarova

PhD student full-time at the Department of Mathematics, Physics and Informatics at the University of Forestry (UF), Sofia

Dissertation topic: Research of the e-business system in the context of increasing the digital and professional competencies of consumers

Member of the Scientific Jury: Vladislav Ivanov Todorov, University of Forestry, in scope of higher education Social, economic and legal sciences, professional field Administration and management, scientific specialty Application of computing technology in economics

Appointed as a member of the Scientific Jury with Order of the Rector of University of Forestry No ЗПЦ 530 / from 17.10.2021

1. Compliance with the procedure.

In the set of materials provided for my opinion (on paper and electronic media) is available the complete set of documents that is required for the defense of a dissertation for the award of the ONS "Doctor", in accordance with the provisions of the ZRASRB and the Regulations of UF for its application. It contains the following documents, which the doctoral student filled out completely and accurately, including application by the doctoral student; dissertation work and abstract to it; declaration of originality within the meaning of art. 27, para. 2 of PPZRASRB; certificate of fulfillment of the minimum national requirements for scientific and publication activity; report on the contributions related to the dissertation work; bibliography of published scientific articles on the dissertation; minutes of the preliminary discussion of the dissertation by an extended Departmental Council; a European-style resume; a notarized diploma for higher education in "Master" degree, specialty "Business Management" from UF; certificate of passing four exams in the specialty from the individual study plan of the doctoral student; copies of the enrollment and deduction orders with the right of protection, as well as the NACID information cards (in Bulgarian and English).

I am not aware of any signals and objections regarding the requirements and deadlines for the procedural steps of preparation and defense of the dissertation, as well as regarding the topic and content of the dissertation. I believe that the documents meet all the norms and requirements for the implementation of the procedure for the defense of the developed dissertation work.

2. Brief biographical data about postdoctoral student.

Neda Chehlarova was born on 30.05.1994. During the period 2013 - 2018, she studied at the UF, Faculty of Business Administration, where in 2017 she graduated with honors with a Bachelor's degree in Business Administration, and in 2018 she obtained Master degree in the same specialty, with excellent results.

From June 2019, by Order No. 3CД-188/20.06.2019 of the Rector of the UF, she was enrolled as a full-time doctoral student in professional direction 3.7. Administration and management, scientific specialty scientific specialty Application of computer technology in economics. By Order No. 3CД-210/08.07.2022 of the Rector of UF, the doctoral student was dismissed with the right of defense, starting from 02.07.2022.

3. The actuality of the problem.

The relevance and significance of the dissertation research is determined by the place and importance that e-business has for the creation and development of the digital competence of users in the single digital market. The object, subject, purpose and tasks of the research outline the main trends related to the processes of digitization of business practice, as well as the importance of digital and professional knowledge and skills for the efficiency of business processes. A methodology was proposed and used for the experimental study of the digital competence of Sofia Technical University students and employees of the state administration. The results of the research were used to solve the set tasks and to achieve the goal of the research. Basic elements of the methodology for preparing and conducting short trainings for user support are proposed, as well as short training for working with a QR code, short training for working with an Electronic Signature, including - a curriculum and analysis of the results of a sample training.

The formulated research thesis is that the toolkit applied in the dissertation for the development and planning of initiatives contributes to the rapid awareness of users about key or specific features of the ICT covered in the e-business system, as well as to the development of the digital competence of users in the e-business system. electronic business of organizations and business entities.

The formulated research thesis is decomposed into five research tasks that outline the logic of the dissertation research and prove the correctness of the applied analytical tools. The relevance of the problems examined in the study is presented in the First Chapter, where the theoretical foundations of the e-business system and the digital and professional competencies laid down in the European and national qualification frameworks are presented, in their mutual relationship

4. Relevance of the topic of the dissertation and expediency of the set goals and tasks.

The formulated topic of the dissertation research on the e-business system in the context of increasing the digital and professional competences of users is closely related to the goal set in the First Chapter - to examine the main features and determine the scope of the modern e-business system, used in organizations and economic entities in the context of the need to increase the digital competences of the users of this system so that they can provide them with competitive advantages, help them overcome the digital lag and accelerate the digitization processes in the short, medium and long term plan.

5. General presentation of the dissertation, knowledge and mastery of the issue.

The dissertation has 179 printed pages and contains an introduction, three chapters, a conclusion, contains 44 figures and 21 tables in the text, as well as a list of the literature used, a list of publications on the dissertation and appendices at the end. Appendices list tables, figures, and survey questions related to the dissertation.

The bibliography contains the titles of 205 information sources, of which 117 are in Cyrillic and the rest are in Latin.

6. Research methodology.

The methodology of the dissertation research is presented precisely and clearly in the First Chapter, where the purpose of the research is formulated, the object and subject of the research are revealed, the specific research tasks of the dissertation are logically and comprehensively presented. The research thesis of the study is formulated. The used scientific research methods are presented - observation, analysis and synthesis, including such experimental methods as survey, interview, SWOT-analysis, etc.

7. Evaluation of dissertation results.

At the end of each chapter of the dissertation, as well as in the Conclusion at the end of the dissertation, the conclusions of the research work carried out by the doctoral student are presented. They provide a summary of the observed trends and processes in the development of the e-business system (Chapter One); the main problems with regard to digital competences related to the rapid change of technologies and requirements in the field of ICT are indicated, the requirements for quick and often strictly specific adaptability of the curricula within the educational process, the orientation of the training and especially - the practical, are taken into account, to smaller topics (Chapter Two); it is emphasized that there are activities through which business can assist in creating conditions for increasing the digital competence of users, a toolkit for developing and planning initiatives aimed at increasing the digital competence of users is recommended (Chapter Three).

Finally, generalizing trends and conclusions related to school education and higher education are given curricula and programs related to the development of the digital competence of learners are regularly updated, the importance of business participation in creating or updating curricula is highlighted, as well as the role of national and European programs and projects, which are aimed at improving the technical base at the various educational levels. The contributions of the dissertation can be summarized in the following few directions.

Attached to the dissertation is a list of 7 publications (including 2 referenced in world-renowned scientific databases), with the participation of the doctoral student on the topic, which correspond to the content and guidelines of the development.

CONTRIBUTIONS

A. Scientific and applied:

1. The scope of the e-business system in modern organizations and business entities has been investigated in the context of its use by the user and the digital competencies he must possess to work with it successfully and efficiently.

2. Strategic documents, research results and good practices related to digital and professional competencies are summarized and analyzed; the main trends for the development of digital competences in the training conducted within the currently existing educational process in schools and in higher education in Bulgaria.

3. Some trends in the development of digital competences of professional groups have been investigated. A recommendation was made to organize user groups according to educational and age characteristics in providing their support.

B. Applied:

1. A toolkit was developed and tested for the development and planning of initiatives (in the form of short user support trainings) aimed at increasing the digital competences of users in the context of the dynamics of development of the e-business system of organizations and business

entities. It includes activities for working with users and activities for training personnel for working with users.

8. Critical notes and questions.

I believe that the place of those set out in paragraph 3.4. Brief trainings for the development of digital competences of users, on pages 126 -133, questions and answers from short interviews with employees in various fields is in the appendices to the dissertation.

A question for the doctoral student, does she consider that the study documentation and the system for the management of the quality of education at UF provide conditions for the acquisition of the relevant digital competences for the graduates of UF with higher education, and what would she recommend in this regard?

9. Personal impressions.

From my position as a Neda's teacher and a colleague since the years when she studied in the Business Administration specialty and subsequently - as a full-time doctoral student at the Department of Computer Systems and Informatics/Department of Mathematics, Physics and Informatics at UF, I know the Neda and have direct impressions of her qualities as a learner and as a researcher. She participated in the organization and holding of the international scientific conference "Management and Sustainable Development", and as an author - in the scientific journal of the same name, of which I was deputy editor-in-chief. The doctoral student is distinguished by clearly expressed positive qualities as a student and as a researcher, she exhibits a personal position and her own style, which she strives to apply in her work.

10. Conclusion.

In conclusion, I would like to summarize that the dissertation of the PhD student Neda Venelinova Chehlarova submitted to me for opinion is in full compliance with the requirements of Art. 9 of the Law on the Development of ASRB, on Art. 27 of the Regulations for the implementation of the RSARB and Art. 31 of the Regulations for RAS of UF (2019), as well as the Scientometric requirements for obtaining an educational and scientific degree "doctor" at UF. I give my positive assessment of the dissertation research and propose to the members of the scientific jury to support the awarding of the educational and scientific degree Doctor in professional direction 3.7. Administration and management, by scientific specialty Application of computer technology in the economy.

Prepared opinion:

/Vladislav Todorov/

The review was submit: 14.12.2022