



D. A. Academy of Economics - Svishtov, Bulgaria

STATEMENT

Reviewer: Prof. Dr. Krasimir Shishmanov,

Scientific specialty 05.02.08 "Application of computer technology in economics", Department of Business Informatics at D.A. Academy of Economics - Svishtov

Appointed a member of the Scientific Jury by Order of the Rector of D.A. Academy of Economics - Svishtov № 1083 / 15.12.2021

Author: Dimitar Georgiev Trichkov - PhD student at the Marketing Department at the D.A. Academy of Economics - Svishtov

Topic of the dissertation: "BIG DATA ANALYSIS PRODUCT DIVERSIFICATION"

Scientific adviser: Assoc. Prof. Dr. Todor Krastevich

I. General presentation of the dissertation

The presented dissertation contains an introduction, three chapters, a conclusion, a bibliography, one attachment. The main text includes 50 figures and 46 charts. The research body contains 218 pages. The dissertation is well structured, there is a logical sequence between the chapters. The **list of the quoted sources** includes 107 literature sources, 15 of which are in Bulgarian.

The **research purpose** is to analyze the possibilities and propose a conceptual model for increasing the revenues of the telecommunications company through diversification by offering its own financial services.

The **object of research** in the dissertation are the alternative services offered by the telecommunications company, not related to the main subject of its activity.

The **subject of the study** is market growth and related additional financial flows generated as a result of offering own financial services by the telecommunications company in partnership with a financial institution.

The **main research thesis** is that telecommunication companies have a huge potential for diversification of their services, based on the big data generated by the activity of their customers.

I believe that these formulations are **correct** and correspond to the subsequent goals and objectives. Important restrictive conditions have been set correctly, which determine precisely the scope of scientific research.

II. Assessment of the form and content of the dissertation

1. Assessment of the researched scientific problem's relevance and development in the dissertation

The dissertation is dedicated to a current scientific problem. The possibilities of product diversification through the use of big data analysis are considered in the development. Big data is entering all areas of economic and social life and its use by telecommunications companies is a clear confirmation of this thesis. Increased attention to big data, as well as systems based on it, is due to the fact that they are becoming increasingly important for the accelerated development and prosperity of companies that use them. This explains their increasing use at the moment and the expectation that they will be relevant for a long period of time in the future.

Overall, the development is well structured. The author used the traditional approach - the theoretical aspects of the issues related to the possibility of rational use of data stored in the telecommunications company and the implementation of digital services are considered first. A research was then carried out to confirm the above, and finally a potential business model for the joint implementation of mobile financial services has been proposed.

The introduction meets the requirements. It clearly formulates the object, subject, purpose and tasks. In order to achieve the set goal, the author sets himself five tasks. All assigned tasks are formulated correctly and cover the content of the dissertation. The approaches and methods used can be defined as appropriate and effective.

In the first chapter the author considers the possibilities of the telecommunication company in the digital economy as a modern form of business development. The idea of diversification as a way of economic growth and the implementation of mobile financial services is presented. The connection between the two significant business sectors - telecommunications and banks - is considered, and the choice of a diversification strategy opens the possibility to use the available resources and generate new financial flows.

In the second chapter the approaches for credit risk assessment of individual clients are presented and analyzed. Based on various models, credit information reporting systems and risk assessment methods in credit institutions have been studied. A critical analysis of the shortcomings of the methods used is made, a review of the successful application of alternative methods for risk assessment in practice is presented.

The third chapter presents the results of different models for customer data analysis and their comparison. The researched results are the basis for confirming hypotheses and deriving trends in the behavior and magnitude of risk between the two main types of Telecom subscribers. The market potential and the scale of the possible business model for offering alternative financial services are studied. The author suggests a possible structure, processes,

interactions and responsibilities of the participants in potential cooperation between telecommunications and banking companies in the field of financial services.

In the conclusion the researcher presents summarized the results of the research in accordance with the implementation of the tasks. Opportunities for future research in the field of application of Big Data in telecom and the implementation of alternative business models have been identified.

2. Opinion on the language, volume and tools of the dissertation.

The style used in the dissertation is scientific and shows good theoretical training and practical experience in the field. The volume of the dissertation is 218 pages, which corresponds to the requirements for research of a similar kind.

The correct quotation of the used sources, as well as the indicated sources under the tables and diagrams, makes a good impression, which clearly outlines the author's contribution to the adaptation and presentation of his own work. The used literature sources are 107, which is enough for a dissertation.

The PhD student has presented 3 publications, 1 of which is a study and 2 articles. The publications are made on topics related to the dissertation and meet the requirements.

3. Opinion on the extent to which the author's resume accurately and fully reflects the work

The resume is 53 pages long and reflects the main points of the dissertation and the achieved research results. It is accompanied by a Reference to the main scientific contributions, a Declaration of Originality and Authenticity and a List of publications related to the dissertation.

III. Scientific and scientific-applied contributions of the dissertation

Undoubtedly, the presented dissertation contains many scientific and applied contributions. Among them are the following:

- the proposed idea of diversification;
- the argument for using the potential of Big Data not only for personal needs, but also to generate significant financial flows from their alternative use;
- the presented model for creating a new structure with a subject of activity, different from the main one;
- the orientation opportunities towards new products and services.

IV. Recommendations and notes on the dissertation

During the discussions, remarks and recommendations were made, which were accepted and correctly reflected by the doctoral student.

He shall continue his research in the field and related issues, as well as publish in authoritative scientific journals.

V. Summary assessment of the dissertation and conclusion.

The dissertation has the structure and volume required for this type of research. A significant number of literature sources have been studied, and a large amount of empirical data has been found, processed and analyzed to support the author's point of view.

The presented dissertation work of PhD student Dimitar Trichkov has the qualities of independent research on a topical issue in theory and practice. It contains the necessary scientific and scientific-applied contributions and meets all the requirements and criteria for awarding the educational and scientific degree "Doctor". All the above gives me a reason to propose to the esteemed Scientific Jury to award the educational and scientific degree "Doctor" to PhD student Dimitar Trichkov.

17.01.2022

Reviewer:

/Prof. Dr. Krasimir Shishmanov/