

OPINION

by Prof. Dr. Silvia Trifonova Trifonova-Pramatarova, University of National and World Economy (UNWE), Sofia

of a dissertation for awarding the educational and scientific degree “doctor” in the Area of higher education 3. Social, economic and legal sciences, Professional field 3.8. Economics, PhD program “Finance, Insurance and Social Insurance”, Higher School of Insurance and Finance (VUZF University), Sofia

Author: PhD student Dobromir Donchev

Topic: “Creating a governance model of digital transformation of business entities in the digital economy through process mining methodologies”

1. General description of the presented materials

By Order No. 135/22.03.2024 of the rector of the Higher School of Insurance and Finance (VUZF University), Prof. DSc. of Law Boris Velchev, I have been appointed as a member of the scientific jury to ensure the procedure for the defense of a dissertation on the “Creating a governance model of digital transformation of business entities in the digital economy through process mining methodologies” for the acquisition of the educational and scientific degree “doctor” in the Area of higher education 3. Social, economic and legal sciences, Professional field 3.8. Economics, PhD program “Finance, Insurance and Social insurance”.

The materials submitted by the VUZF University include all necessary documents for the procedure, namely: CV, dissertation, abstract in Bulgarian and in English, list of publications, annotations of publications, copies of publications, declaration for fulfilment of the national minimum requirements for obtaining a doctoral degree in professional field 3.8. Economics, declaration of authenticity and originality, impeachment order, scientific jury order.

2. Brief biographical information of the candidate

Dobromir Donchev has a bachelor’s degree in mechanical engineering – precision engineering from TU-Sofia, 2003, a master’s degree in electronic business and electronic management from UNIBIT, Sofia, 2012, and an MBA degree, Department of Leadership, Management and Finance (in partnership with Ambient) from VUZF University, Sofia, 2013.

The candidate has extensive practical experience. The positions held by him are the following: IT Product Owner – Shutterfly Inc, Visteon, Senior IT Project Manager – Festo, Playbox, Head of IT – AG Capital, Advent Group.

3. Relevance of the topic and relevance of the goals and objectives

The topic of Dobromir Donchev's dissertation is very interesting, up-to-date and innovative, fully meeting the modern conditions of digitalization. The research gives the reader the opportunity to familiarize himself with the most important factors and trends for the successful digitalization of business.

The aim of the dissertation is to analyze the impact of organizational factors on the business digitalization process and to show the possibilities for optimization of processes at the "company" level through the integration of „Process mining“ methodology.

6 research tasks are set in the dissertation:

1. Completion of the conceptual vision for a general innovative management model and presentation of a conceptual innovation framework for the life cycle of the digital initiative (BA/Agile/CMMI/Process mining).
2. Study of the degree of readiness for the implementation of a common work model between the management of business requirements and Agile Management methodologies.
3. Comparative analysis of the different flexible models for the development of digital products (Agile).
4. Study of the degree of readiness for the implementation of a common work model based on the system for ensuring the quality of manufactured products (CMMI) and a selected flexible methodology for the production of digital products.
5. Analysis of new approaches of systems and models for optimization of processes based on real data through process mining and investigation of the possibility of integrating the described concept as a general approach to an innovative model for automated processing of large arrays of information/knowledge that covers all core business domains.
6. Summarizing the results of the research, with the formulation of guidelines for the implementation, use and subsequent development of the process innovation.

4. Knowledge of the problem

The PhD student is very familiar with the problem of dissertation research. The main business areas are examined and an innovative synergistic model for managing risky investments in the digital economy is presented. The final result is a developed and adapted model (process innovation) for digital transformation management. Its main focus is achieving business efficiency and effectiveness through constant process optimization and high levels of customer and staff satisfaction. Process mining is defined as the missing link between Data Science and process management.

The object of research are innovative business projects in the digital industry. The subject of research is the design of corporate social systems and accompanying technologies related to the entire cycle for the production of innovative products.

The research thesis of the dissertation is that the available models and methodologies for managing digital products do not have a universal character and their application should be the result of a consistent, targeted and systematic study of the technological and social environment of a given company. The correct and gradual integration of the given components into a common innovation model will lead to the improvement of the competitiveness of business entities in the process of their transformation to a knowledge-based digital economy.

5. Research methodology

To fulfill the aim and tasks of the dissertation, a variety of research methods were used: theoretical-methodological analysis, comparative analysis, review of literature sources on the research problems, descriptive analysis, method of analysis and synthesis, method of induction and deduction, method of questionnaire research, SWOT analysis, etc.

6. Characteristics and evaluation of the dissertation

The dissertation of Dobromir Donchev has a total volume of 198 pages, with the actual part covering 190 pages. The presentation consists of an introduction, three chapters, a conclusion and 2 appendices. The first appendix is a list of the figures and tables in the paper that should have been included in the exposition itself. The second appendix concerns a glossary of the terminology used.

The bibliography of the dissertation includes numerous literary sources, but they are not numbered. The paper contains 67 figures and 4 tables.

The first chapter of the dissertation is dedicated to the theoretical-methodological analysis and practices in the field of process mining. I am interested in the analysis of key aspects of digital transformation, namely its components, accelerators, management principles and framework, types of innovation. Rightly, the greatest attention is paid to the models for management and development of processes and especially to the methodology of Process mining.

The second chapter of the dissertation is devoted to the analysis of policies and project management models for digital initiatives. Of interest is the analysis of the Agile project management methodology and the CMMI (Capability Maturity Model Integration) framework and its application.

In the third chapter, a model is created for managing digital initiatives through the methodology of Process mining. A practical application is given with examples from various industries, such as the service economy (servicization) and the digital economy (digitalization). The main results of the study are presented in the conclusion.

7. Scientific contributions and significance of research results for science and practice

The contributions of Dobromir Donchev's dissertation are indicated in the abstract. I confirm the received scientific and scientific-applied contributions of the dissertation as follows:

1. Formulation of a scientifically-practically justified proposal for the renewal of objects, processes and technologies used in the economy, production and management of digital products.

2. Building a new innovation model for the management of the life cycle of digital products, which leads to an increase in the productivity and profitability of the business.
3. Performed detailed analysis of BA, CMMI and Agile methodologies.
4. Outlined a clear synergistic effect between the considered models and practices and the Process mining methodology.
5. Bringing out the main problems before the digitization of companies and essential interdependencies between organizational factors and the quality of the produced digital product/service, with the formulation of guidelines and prerequisites for their solution.

8. Evaluation of the publications on the dissertation

The PhD student has submitted 5 scientific publications on the topic of the dissertation, which are in the form of articles and reports published in non-refereed peer-reviewed journals or published in edited collective volumes. Three of the publications are in the form of articles, two of them in “Money and Culture” (2023) and one in “Business and Public Management” (2023). One of the publications is in the form of a report to an international conference, and only it was co-authored. All other publications are standalone.

9. Assessment of compliance with national minimum requirements

The reference on the fulfilment of the minimum national requirements for acquiring educational and scientific degree “doctor” in Professional field 3.8. Economics shows that the publications submitted by the PhD student form 170 points

10. Personal participation of the candidate

I believe that the dissertation is the work of the doctoral student himself.

11. Abstract

The abstract corresponds to the structure and content of the dissertation. My only recommendation is that the abstract also presents a synthesized content of the dissertation, which is currently missing.

12. Critical remarks, questions and recommendations

I have no substantive critical comments on Dobromir Donchev’s dissertation. But I have one question to the PhD student to clarify:

- How can business units on the Bulgarian market, which do not have a sufficiently high degree of digitization and are limited in the use of process mining, take advantage of the benefits that this model offers?

13. Personal impressions

I do not know the doctoral student and I have no personal impressions of him.

CONCLUSION

The dissertation on the topic “Creating a governance model of digital transformation of business entities in the digital economy through process mining methodologies”, authored by Dobromir Donchev, is an in-depth study of this issue. The presented materials are in accordance with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria (LASRB) and the Ordinance on the Implementation of the LASRB, as well as the Ordinance on Admission and Training of Doctoral Students at the VUZF University.

Based on this, I give a positive assessment of the scientific research presented in the above-mentioned peer-reviewed dissertation and abstract, and I propose to the respected members of the scientific jury to award Dobromir Donchev the educational and scientific degree “doctor” in the area of higher education 3. Social, economic and legal sciences, professional field 3.8. Economics, doctoral program “Finance, Insurance and Social Insurance”, Higher School of Insurance and Finance (VUZF), Sofia.

19.04.2024

Sofia

Author of opinion:

(Prof. Silvia Trifonova-Pramatarova, PhD)