



ИКОНОМИЧЕСКИ УНИВЕРСИТЕТ - ВАРНА

СЕРТИФИЦИРАНА СИСТЕМА ЗА УПРАВЛЕНИЕ НА КАЧЕСТВОТО ISO 9001:2008

9002 Варна • бул. "Княз Борис I" 77 • Телефон 052 643 360 • Телефакс 052 643 365 • www.ue-varna.bg

REVIEW

**of a Dissertation for acquiring the scientific degree "Doctor of Science"
in professional field 3.8. *Economics*, scientific specialty *Marketing*
at the AE D.A. Tsenov - Svishtov**

Review drawn up by: Prof. Dr Evgeni Petrov Stanimirov, scientific specialty *Marketing*, Department of Marketing at the University of Economics - Varna.

Regarding: Dissertation for acquiring the scientific degree "Doctor of Science" in area of higher education 3. *Social, Economic and Legal Sciences*, professional field 3.8. *Economics*, scientific specialty *Marketing* at the AE D.A. Tsenov - Svishtov.

Grounds for submitting the review: membership of a Scientific Examining Jury by Order No 253/25.03.2026 of the Rector of AE D.A. Tsenov - Svishtov and first meeting of the Scientific Examining Jury, held on 27.03.2026.

Author of Dissertation: Prof. Dr Todor Borisov Krastevich.

Dissertation topic: "Customer Lifetime Value (conceptual, methodological and applied aspects)".

I. General description of the Dissertation

The presented Dissertation of Prof. Dr Todor Krastevich entitled "Customer Lifetime Value: Conceptual, Methodological and Applied Aspects" is devoted to an extremely topical and significant issue in contemporary marketing theory and practice. The relevance of the study is determined by the accelerated role of customer value as an integrating concept between strategic marketing, customer relationship management and the financial logic of business. Under conditions of digitization, the availability of big data and the entry of machine learning into marketing analytics, the estimation and forecasting of Customer Lifetime Value becomes a key tool for management decision-making.



A particular strength of the research work is the pursuit of integration between the classical probabilistic models and the modern predictive models, which indicates a high degree of scientific maturity and orientation towards practically applicable solutions.

All this shows that the topic which has been chosen is in line with the contemporary theoretical and practical achievements in the marketing area, i.e. it is of a relevant subject-matter, and creates prerequisites for substantial theoretical as well as practical and applied generalizations, which makes it significant.

II. Assessment of the structure and contents of the Dissertation

The Dissertation is 318 pages long and comprises an Introduction, five Chapters, a Synopsis, Reflective Epilogue and Appendices, as well as abundant Bibliography consisting of 264 sources.

The structure of the work is logical, consistent and conforms to research logic: from the conceptual clarification of the problem to its methodological and applied development.

In terms of content, the following more substantial points can be highlighted.

In the first parts of the work a sound conceptual framework of the concept of CLV is built, and the economic nature, evolution and strategic role of the latter are discussed.

A thorough typology of the models for the estimation of CLV is presented: deterministic, heuristic, probabilistic, models based on machine learning, on deep neural networks, as well as hybrid and ensemble models. The author also presents considerations in choosing the approach to modelling CLV.

Particular attention is paid to the distinction between contractual and non-contractual relationships/dealings with customers, which is of key importance to the choice of model.

A comprehensive methodological modelling framework is developed, which comprises preparation of data, selection of metrics, assessment of accuracy and interpretability.

Model prototypes (incl. BG/NBD, Gamma-Gamma, Random Forest, XGBoost) as well as hybrid solutions are realized in the applied section.



One is impressed with the high level of methodological competence, as well as the striving for reproducibility through the use of analytical protocols and programming implementation.

The study is distinguished by clearly defined:

- object (the processes of estimation and management of customer value);
- subject (the modelling and forecasting of CLV);
- aim (improvement of forecasting accuracy and managerial usefulness through the integration of classical and ML approaches);
- hypotheses (H1–H6), which are logically justified and are subject to empirical verification.

One strength of the Dissertation is the methodological tools and the prototyping of applied models for forecasting Customer Lifetime Value.

A highly positive rating should be given to:

- the comparative approach between the various classes of models;
- the use of realistic (albeit simulated) CRM data;
- the orientation towards managerial applicability of the results.

There is a balanced combination between theoretical rigour and practical orientation.

In the presented *conclusion*, which the author calls "Synopsis and Discussion", there is a successful synthesis of the achieved results. Additionally, there is presented a comparative analysis by key measurement, as well as prospective methodological implications and a hybrid framework.

The bibliography shows the excellent literature knowledge of the author of the Dissertation.

The formulation of the study, the selected tools and the presented results show the eminent professional approach of the author in connection with the use of statistical and probabilistic models, as well as modern ML methods.

I expressly perceive as achieved the specified *aim* and *objectives* of the study.

The *summary* corresponds to the main work of the author.



III. Assessment of the publications on the Dissertation and fulfilment of the minimum national requirements

12 publications, connected with the topic of the Dissertation, are presented: a monograph, scientific studies, articles and papers. Part of the publications are done in co-authorship: a total of 4. The same number of publications are indexed in Scopus. 50% of the presented publications are published in English, which increases their visibility.

The presented statement on the fulfilment of the minimum national requirements in area 3. *Social, Economic and Legal Sciences*, professional field 3.8. *Economics*, for awarding the scientific degree "Doctor of Science" shows that Prof. Todor Krastevich exceeds the requirements twice.

IV. Scientific, practical and applied contributions of the Dissertation

In the Dissertation, there can be highlighted the following substantial scientific and applied contributions:

Of theoretical nature:

1. Systematization and further development of the concept of Customer Lifetime Value as an economic and managerial construct.
2. Development of an integrated typology of CLV models.
3. Substantiation of the need for a hybrid approach between probabilistic and ML models.

Of methodological nature:

4. Creation of a comprehensive methodological framework for modelling CLV.
5. Development of reproducible analytical protocols for assessment and comparison of models.

Of practical and applied nature:

6. Prototyping of models in different business contexts (non-contractual and contractual).
7. Formulation of management rules governing the use of CLV in marketing decisions.



8. Demonstration of the applicability of the results in actual business scenarios.

V. Recommendations and questions

In order to further develop the study and raise its applied value, the following recommendations can be made:

1. What are the possibilities for applicability of the developed models in actual business under limited or incomplete data, as well as in situations of lack of a unified format for their systematization?
2. Is it possible to develop standardized procedures for the deployment of CLV models in various industries or is this an issue that is solved on a case-by-case basis?
3. To what extent can the use of machine learning be reconciled with the requirements for transparency and managerial accountability?

VI. General evaluation of the Dissertation and conclusion

The presented Dissertation constitutes a study of an exceptionally pertinent and significant practical and applied issue for business. What has been achieved by Prof. Dr Todor Krastevich reflects and develops further the contemporary achievements in the sphere of strategic marketing and the management of relationships with customers in theoretical, methodological and practical aspect. Undoubtedly, there are found original contributions of the author to marketing theory and practice. The research work contains theoretical generalizations and solutions to applied research problems, representing significant and original contribution to science. The above is in keeping with the requirements of Art. 12 of the *LDASRB*, Art. 37 of the *RALDASRB* and Art. 86 of the *Regulations on the Development of the Academic Staff* at AE D.A. Tsenov - Svishtov, which is why I propose with conviction that the members of the esteemed scientific examining jury take a favourable decision on awarding the scientific degree "Doctor of Science" in area of higher education 3. *Social, Economic and Legal Sciences*,



ИКОНОМИЧЕСКИ УНИВЕРСИТЕТ - ВАРНА

СЕРТИФИЦИРАНА СИСТЕМА ЗА УПРАВЛЕНИЕ НА КАЧЕСТВОТО ISO 9001:2008

9002 Варна • бул. "Княз Борис I" 77 • Телефон 052 643 360 • Телефакс 052 643 365 • www.ue-varna.bg

professional field 3.8. *Economics*, scientific specialty *Marketing*, to Prof. Dr Todor Borisov Krastevich.

22.04.2026

Varna

Review drawn up by:

(Prof. Dr Evgeⁿi Stanimirov)