

## REVIEW

**By:** Prof. Dr. Tsvetana Aleksandrova Stoyanova - Department "Management", UNWE - Sofia

**Reason for submitting the review:** participation in the scientific jury for the defense of the dissertation work in accordance with Order No. 3-RK-88/06.01.2022 by the Rector of NBU.

**Author of the dissertation paper:** Apostol Ustiyarov Mushmov

**Dissertation paper theme:** "Innovative Gaming Models and Tools Used in the Corporate CRM Strategy"

**Subject:** dissertation paper for the award of educational and scientific degree 'Doctor' higher education area 3. Social, Business and Legal Sciences, in professional strand 3.7. Administration and Management (Business Administration)

The review has been prepared in accordance with the Law of Development of the Academic Staff of the Republic of Bulgaria, the rules for the application of this law and the Ordinance on the Development of Academic Staff in the NBU.

### 1. Importance of the researched a problem in scientific and scientific and applied terms.

Undoubtedly the topic of using gaming models for enhancing motivation is particularly relevant both in theoretical and practical plan. Human factor has always been the leading one for achieving organisational development and sustainability. It is increasingly been paid attention to innovative approaches to assessing knowledge, skills and competences of human resources. In this sense, the chosen research problem is directly related to the challenges regarding the motivation of employees as well as with the lack of a clear and accurate theoretical framework for the problem in research. Emphasis is placed on business searches for new sources, approaches and methods of analysis, conceptualization and use of gaming in the corporate CRM strategy.

### 2. Precisely formulated goals and tasks of the dissertation.

The dissertation paper has a clearly outlined structure that is predetermined in the very introduction with the summary of the actuality and significance of the problem, the extent of its research, the main thesis, work hypotheses and recommendations for future studies. The objective, sub-objectives and tasks, the subject and the object of the study are correctly determined, the main thesis is precision and the restrictive conditions for its proof are properly defined. The total volume of the dissertation paper is



208 pages and includes introduction, four chapters, conclusion, scientific and applied contributions, bibliographic reference, applications.

The purpose of the dissertation is to carry out theoretical overview and build gamified software systems for motivation, commitment, team dynamics, satisfaction and prosperity of employees towards achieving the company's internal CRM goals.

This aim has been decomposed into several sub-aims:

- Analyze leading theories in the field of motivation, commitment, loyalty and gamification.
- To explore the contribution of the gamified motivation and commitment system (GMCS) on employees, system users, and how it has influenced their attitudes and behaviour.
- Exploring the effectiveness of various gaming tools to different typological groups participating in the gamified system.
- Formulation of development recommendations (upgrade) of traditional motivation and employee engagement systems towards the internal CRM objectives of the enterprise.

It should be noted that, as a result of the work on the subject, the objective and sub-objectives are accomplished.

### **3. Degree of knowledge of the state of the problem and compliance of the literature used.**

The author knows in depth the problem and the scientific apparatus in the researched area. It is noteworthy that along with traditional concepts of employee motivation, it also presents new ones based on commitment and loyalty programs of new generation. His aim is to create a system for building employee loyalty in which to investigate the power of influence of domestic motivators and to monitor the impact of a number of new tools on employee behaviour. In direct connection with motivation, leadership is also explored. From the CRM communication point of view and in particular in a gamified environment, ways of creating habits and managers are presented to derive from their value system and ethical norms. The concepts are properly used, no logical contradictions and claims have been noticed. Exhaustively and in a wide range are presented achievements in scientific literature that are related to the development of gaming, motivation, leadership and their relationship with the CRM strategy of the organization. This is what indicates the use of 173 literary sources in Cyrillic and Latin. In the entire paper, the author's opinion and critical science thinking clearly stands out. No lapses are noticed in terms of language and grammar. The dissertation work is written in a scientific style and has shown free handling of scientific terminology.

### **4. Correctness in quoting a representative number of authors.**

Literature sources are correctly used according to the adopted quote requirements in scientific publications.

### **5. Existence of a reasoned and developed theoretical model of the study.**

The author on the basis of the research relation gaming - motivation - employee engagement has presented a theoretical model through precise scientifically selecting, isolating and summarizing elements, topics and aspects that are related to the introduction of a gaming platform into the organization. It reflects as well as gamification in the global practice and the specific characteristics of the achievements



in Bulgaria. He has summarized three directions of the theoretical model: The basic direction related to the gamified software systems themselves. The second direction reflects the attitudes of the guidance of organizations to include the gamification in the CRM strategy. The third track is the employees. They have their behaviors, motivation, satisfaction, commitment, etc. that are examined before and after the system is implemented. I can summarize that the Ph.D. student is well-acquainted with the state of the problem and analytically and creatively evaluates and interprets the overview and information material.

#### **6. Compliance of the selected methodology and methodology of examination with the designated purpose and tasks of dissertation work.**

The selected methodology corresponds to the objectives set by the author, sub-objectives and research tasks. In the dissertation paper, analysis and synthesis is applied in the construction of the gamified system subject to the study. In addition, there is a study of objects, problematic situations, relevant situations, rationale of classifications, systematics and emerging issues. Widely used is the comparison approach and comparison of objects and tools, abstraction (extraction of common features), specifying (the demand for abstract models and images in new sites). There are many summaries, judgments and formalizations. Induction and deduction methods are used for transition from the specific and reverse return to the private in the creative realization in creating the system, multiple analogies and modeling for the utilization of theoretical accumulation in the final result are used. As mathematical data analysis methods are used analysis of the main components and cluster analysis. Variants of statistical methods for analyzing the significance of differences (of T-test type) are used as well, and in some cases are sought results in relation to the definition of clinical significance. Data collection methods that the author used are online surveying, lectures, automatic data retrieval of system registers. All these methods allow verification of the work hypothesis and sub-hypothesis.

#### **7. Presence of personal contribution at collecting and analysing the empirical data.**

I believe that the collection and analysis of empirical data is done personally by the author, with scientific precision, accuracy, criticality and credibility. All this provides a good basis for analyses made and conclusions and results achieved in the scientific research. Especially high I appreciate the production of the gamification model in two institutions - financial and telecommunication. The study itself covers the period before and after the introduction of the new gamified system and follows the level of motivation and employee engagement in these two organizations. The results show that one not a small part of the attitudes of the participants could be significantly influenced by the behavioral, cognitive and emotionally influential tools in the platform and that gamified motivation and commitment systems lead to improvement of a number of company metrics and to more Full achievement of the internal CRM objectives of the companies.

#### **Description of contributions:**

The dissertation paper contains a number of productions, ideas and suggestions that can be grouped into two directions: Contributions of scientific and contributions of science and applied character.

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Scientific:

- The newly introduced moments related to the creation, specification, interpretation, monitoring and analysis of a gamified motivation system.
- Based on quality research on motivation, leadership, corporate culture, team dynamics and other theories, are offered entirely new, copyright processes.
- The proposed and implemented methodology for the separation of the typological groups of participants in the systems, with additional dimensions taking into account the employees' attitudes, other than the classical (gamification) focused on the interaction of the participants between them and the environment.
- The protected author thesis that the systems created (the subject of the survey) are involved in the life of the company as artificial intelligence leaders and can be seen as independent employee management models.

Scientific and applied:

- A social and economic effect has been achieved through the introduced innovation in organizations related to the object of research.
- Recommendations, analysis and summaries have been made, which would help other companies in the development of such types of systems.

The indicated contributions in the dissertation show that the PhD student has in-depth knowledge in the study scientific field. The developed author's methodology and the research tools used are evidence that the PhD student is able to conduct a separate scientific study and to logically interpret the results of it.

An abstract of the volume of 49 pages has been presented together with the dissertation. It correctly and precisely enough reflects the contents of the dissertation paper. The abstract also highlights the most important moments of the research made. Ph.D. student's contributions are precisely presented.

**Impacts of the dissertation paper on the external environment.**

In support of his research and as an expression of publicity of his ideas, the author of the dissertation raises a list of 7 publications - 2 articles and 5 reports. The reports are presented to international scientific and practical forums. The articles are in reputable specialized scientific editions.

The materials presented do not specify the use and citation of the paper from other authors. No reviews in the scientific media are mentioned.

**Author's personal qualities (if the reviewer knows him).**

I don't know the Ph.D. Student Apostol Mushmov and my positive impression comes solely from the dissertation paper presented.

**Opinions, recommendations and notes.**

I believe that the dissertation paper has been accomplished and meets all requirements, therefore, weaknesses could hardly be found, as well as to be given recommendations. The results achieved, reasoned conclusions and proposals from the study in the dissertation could be used as a benchmark in developing gamification patterns for motivation in other organizations. During the pre-defense (where I



participated) and in the subsequent correction of the dissertation, a number of critical remarks and recommendations were reflected. My only note to the final version of the dissertation refers to the conclusion, which I thought could further summarize what the author has elaborated.

PhD student Apostle Mushmov has to continue his future research and scientific and applied activity in the field of gamification and increase of the employees' motivation.

It will be interesting to know the PhD student's opinion on the following question: How do you think, the situation with Covid -19 influenced the motivation and commitment of employees and what actions did the organizations surveyed by you take in this direction?

**Conclusion:**

In conclusion, it can be said that the dissertation is a complete, scientific study on a topical issue and contains scientific contributions in the field of gamification and motivation in educational institutions. The Ph.D. student knows and analyzes the literature on the subject, can formulate research problems, systematize classical and new theories and concepts, to construct a research apparatus, conduct empirical research and justify proposals to improve the existing practice. The foregoing gives me a reason for a positive conclusion that the dissertation work titled *“Innovative Gaming Models and Tools Used in the Corporate CRM Strategy”* complies with the requirements of the LDASRB, the Rules for its application and the Rules on the development of the academic staff at NBU, which is why I propose to the honorable members of the scientific jury to vote for the award of the Doctor scientific degree to *Apostol Mushmov* in the field of higher education 3. Social, Business and Legal Sciences, professional strand 3.7. Administration and Management (Business Administration).

10.03.2022г.

Prof. Dr. Tsvetana Stoyanova:

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