

REVIEW

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(SCIENTIFIC SPECIALTIES: “ORGANISATION AND MANAGEMENT OUTSIDE THE SPHERE OF MATERIAL PRODUCTION”, “ECONOMICS AND MANAGEMENT” AND “ORGANISATION AND MANAGEMENT OF PRODUCTION”)

OF A DISSERTATION ON THE TOPIC “**CHALLENGES FACING LEADERS IN HUMAN RESOURCE MANAGEMENT IN THE ERA OF THE CIRCULAR ECONOMY**”, DEVELOPED BY **ANDREAN JOE**, A SELF-STUDY DOCTORAL CANDIDATE AT VARNA FREE UNIVERSITY “CHERNORIZETS HRABAR”, FACULTY OF “SOCIAL, ECONOMIC AND COMPUTER SCIENCES”, DEPARTMENT OF “ADMINISTRATION AND MANAGEMENT”

FOR THE AWARD OF THE EDUCATIONAL AND SCIENTIFIC DEGREE

“**DOCTOR**”

IN PROFESSIONAL FIELD 3.7. “**ADMINISTRATION AND MANAGEMENT**”

DOCTORAL PROGRAMME “**ORGANISATION AND MANAGEMENT OUTSIDE THE SPHERE OF MATERIAL PRODUCTION**”

1. Information about the doctoral candidate

The doctoral candidate Andrean Joe is enrolled as a self-study doctoral candidate in the Department of “Administration and Management” at Varna Free University “Chernorizets Hrabar”, where he developed his dissertation under the academic supervision of Prof. Snezhanka Ovcharova, PhD. He has successfully passed all examinations of the doctoral minimum and has submitted his dissertation for discussion in the Department of “Administration and Management” at Varna Free University “Chernorizets Hrabar”, in accordance with Art. 39 of the Regulations for the Implementation of the Act on the Development of the Academic Staff in the Republic of Bulgaria. At a meeting of the aforementioned department, the dissertation was accepted for presentation before a scientific jury.

As a doctoral candidate, Andrean Joe combines more than fifteen years of practical experience in financial consulting, investment planning and the strategic management of private clients and small and medium-sized enterprises in Germany with academic analysis, with the aim of proposing applicable solutions for overcoming the challenges facing leaders in human resource management in the context of the transition to a circular economy. He holds a bachelor’s degree in

“Business Management” and master’s degrees in “Business Administration and Management” and “Financial and Banking Management and Marketing” from Varna Free University “Chernorizets Hrabar”.

2. Relevance and significance of the dissertation

The dissertation is relevant and significant because it examines a strategically important area of the management of small and medium-sized enterprises (SMEs) — human resource management in the context of the transition to a circular economy — an area that is at the same time underestimated, insufficiently researched and critically important for the sustainable development of enterprises. Amid growing regulatory requirements for sustainability, a shortage of qualified staff and limited financial resources, the successful management of human capital emerges as a key instrument for sustainable development and competitiveness.

The work provides a theoretical, empirical and practical basis that can support real managerial transformations in small and medium-sized enterprises.

The relevance of the dissertation stems from the fact that the transition to a circular economy is gradually becoming not only an environmental necessity but also an economic and managerial issue related to the sustainability and long-term competitiveness of SMEs. The circular economy lies at the core of the European Union’s strategic framework for sustainable development, and with the adoption of the Corporate Sustainability Reporting Directive (CSRD), the European Sustainability Reporting Standards (ESRS) and the voluntary VSME standard, enterprises face ever higher requirements for transparency, ESG accountability and sustainable management. The dissertation becomes particularly significant in a context in which SMEs account for over 99% of all enterprises and around 53% of employment in Germany, while only 13.9% of the raw materials used in the country are secondary (Eurostat).

In this context, the dissertation is significant because:

First, it enriches the limited scientific literature in the field. It should be noted that there is a lack of systematic scientific research on human resource management

in SMEs in the context of the circular economy, since the circular economy is examined predominantly through the prism of technologies, material flows and business models, and mainly in large enterprises. The work fills this gap by presenting a critical and structured analysis of the role of the human factor in the circular transition.

Second, the dissertation has direct socio-economic implications. This is due to the fact that ineffective human resource management in SMEs affects resource efficiency, costs, competitiveness, the quality of the working environment, employee well-being and the ability of enterprises to adapt to new market and regulatory conditions. Effective transformation can turn sustainability from an “administrative burden” into a source of competitive advantage and long-term stability.

Third, the dissertation brings to the fore the influence of internal organisational factors on the circular transition. The work systematically shows how knowledge deficits, financial constraints, cultural inertia, resistance to change and the lack of partners hinder the effective application of circular economy principles. This analytical approach contributes to understanding the fundamental obstacles to the sustainable transformation of SMEs.

Fourth, the dissertation is relevant because it has practical and managerial implications, i.e. it contains recommendations applicable to the planning and implementation of real management policies in SMEs, related to institutionalising knowledge of the circular economy and ESG; financial provision for competence development; cultural transformation and employee motivation; digitalisation and the use of artificial intelligence; building partnerships along the value chain. Thus, the dissertation is not only an academic work but also a valuable instrument for managerial transformation.

Fifth, the dissertation gives impetus to a future sustainable model for managing human and natural capital in SMEs. The research offers concepts, strategies and a methodology that could contribute to increasing readiness for ESG reporting; improving accountability; using resources more efficiently; increasing employee engagement and well-being.

3. Brief description of the submitted dissertation

The dissertation, with a total volume of 211 pages, consists of an introduction, three chapters, a conclusion, a list of references and two appendices. The content of the chapters is divided into separate sections, which end with specific summaries, conclusions and practical recommendations. The main text contains 26 tables and 35 figures.

The list of references contains 102 titles in Bulgarian, English and German, including electronic resources, with the main references being to scientific sources such as monographs, peer-reviewed scientific articles, specialised studies, as well as strategic and institutional reports.

The introduction substantiates the relevance and significance of the research topic. The object and subject of the research are defined. The object of the research is human resource management and organisational processes in SMEs in Germany from the sectors of real estate management, financial consulting services and crafts, and the subject is the specific challenges and competences required for effective human resource management in the context of the circular economy. The limitations of the research are outlined. The aim and tasks of the research are defined. The aim is to develop a new integrated model for the sustainable management of human and natural capital in SMEs, ensuring alignment between human resource management, circular economy principles and ESG reporting requirements; six research tasks have been set to achieve it. The applied methodology and the information base on which the research is founded are presented.

The research problem is identified. The research thesis is put forward. The main thesis defended by the dissertation is that the challenges facing leaders in human resource management in the context of the circular economy are not limited to external economic, regulatory or technological factors, but are to a significant extent determined by the internal organisational capacity of enterprises to develop knowledge, an ESG culture, sustainable leadership and effective practices for attracting, motivating and developing human capital. Effective management of the

transition requires a new managerial capacity that combines, first, leadership vision, second, strategic human resource management, third, digitalisation and business partnerships, and fourth, employee well-being, which makes it possible to overcome key challenges such as knowledge deficits, financial constraints, cultural inertia, the lack of partners and fragmented sustainable practices.

In line with the focus on obtaining specific applicable results, the limitations of the research have been correctly chosen.

Chapter 1, “Management of Small and Medium-sized Enterprises in the Conditions of a Circular Economy”, provides an overview of the main scientific viewpoints in the subject area of the dissertation. In this regard, the basic principles of the circular economy are discussed and a distinction is drawn between the concepts of sustainability and circular economy. The differences between the linear and the circular model are revealed and critically discussed, showing that in the linear model value is realised at the moment of sale, while in the circular model it is managed throughout the entire life cycle of the product. The challenges facing SME leaders in translating the circular economy from a macroeconomic concept into specific managerial practice are identified (resource and knowledge barriers, organisational culture, lack of measurement systems, partnerships). The need for synergy between human and natural capital is substantiated, an original definition of this concept is proposed, and the concepts of green human capital and green human resource management (green HRM) are examined. The evolution of corporate social responsibility towards ESG orientation and the role of information disclosure in the context of the CSRD, the ESRS, the EU Taxonomy and the VSME are analysed. The chapter ends with conclusions that crystallise the need for an integrated approach combining circular economy principles, human and natural capital, human resource management strategies, corporate social responsibility, ESG orientation and information disclosure. The conclusion affirms the understanding that the transition to a circular economy is a managerial transformation and not solely an environmental or technological change.

Chapter 2, “Human Resource Management System in the Conditions of

Transformation towards a Circular Economy”, analyses from a theoretical and practical point of view the specifics of circular business models and their projection in SMEs in Germany. Germany’s National Circular Economy Strategy (NKWS), adopted in 2024, is examined, and the managerial gap between the strategic framework and actual implementation in SMEs is outlined. Successful management practices are reviewed (repair and life-cycle extension, digitalisation, Product-as-a-Service, sustainable partnerships, development of knowledge and competences, ESG-oriented management), with specific German examples and initiatives (RemanLab, Circular Cities.NRW, Unternehmensnetzwerk Klimaschutz, Mittelstand-Digital). The chapter reveals the key barriers to circular transformation – knowledge deficits (reported by 47.1% of the surveyed SMEs); financial constraints (32.4%); lack of partners (19.6%).

The methodological framework of the empirical research, based on a mixed-methods research approach, is presented. The choice of the three sectors studied – financial consulting services, real estate management and crafts – is substantiated, showing the different logic of applying the circular economy in each of them. The ethical and legal requirements of the research related to informed consent and the protection of personal data under the GDPR are also considered.

The chapter ends with conclusions demonstrating that the circular business model in SMEs does not emerge through the mechanical addition of individual sustainable activities, but through their integration into a comprehensive management system in which leadership and human resource management play a central role.

Chapter 3, “Applied Toolkit and Recommendations for Developing Knowledge for the Sustainable Management of Human and Natural Capital in Small and Medium-sized Enterprises in Germany”, is the empirical part of the dissertation. It presents the results of an online survey with 49 questions, in which 235 SMEs from Germany participated, 102 of which completed the questionnaire in full. The challenges facing leaders are analysed in three thematic parts: general data and application of circular economy principles; integration of these principles into human resource management; managerial and leadership aspects of the sustainable

transition.

Based on the above analysis, the chapter proposes seven strategies for overcoming the identified barriers: financial provision for the transition to a circular economy and the development of human resource management; cultural transformation and change in employee attitudes; internal and external employee motivation; digitalisation, artificial intelligence and the green transition; partnerships and networks with a sustainable profile; reducing consumption and managing the social effects of sustainable behaviour; transformation of human resource management in the context of the circular economy. A formula for Sustainable Leadership Oriented Transformation in SMEs – SLOOT – is synthesised, combining leadership, strategic human resource management, knowledge, culture, motivation and well-being, digitalisation and partnership. A model for the sustainable management of human and natural capital in SMEs is developed, as well as an integrated three-stage model for strategic transformation with specific recommendations (a three-tier training cycle, a target budget of 2 to 3% of annual turnover for developing knowledge and competences in the field of sustainability, etc.).

This chapter proves that human resource management has the potential to become a key intermediary between the strategic intentions of management and the everyday behaviour of employees, and a “strategic architect of sustainable knowledge” in SMEs.

The conclusion of the research summarises the main results of the dissertation, substantiates the confirmation of the research thesis and formulates the contributions of the research.

4. Research methodology

The doctoral candidate Andrean Joe has appropriately selected the research instruments (approaches and methods of scientific research) necessary to achieve the main aim and tasks of the dissertation and has applied them correctly and conscientiously. The methods used in the research are generally accepted scientific

research methods. The main ones in this regard are the review and analysis of the scientific literature, the synthesis of theoretical models, the documentary analysis of European and German strategic and regulatory documents, and the candidate's own empirical survey with respondents. The methodology of the dissertation research is built as a combination of qualitative and quantitative methods, which allow a comprehensive assessment of the challenges facing leaders in human resource management in SMEs in the context of the circular economy. The approach is multidisciplinary, based on the analysis of literature and documents, an online survey, and statistical and content processing of the data.

The empirical research involved an online survey conducted via the LimeSurvey platform among representatives of SMEs in Germany from the sectors of financial consulting services, real estate management and crafts, in the period August 2025 – February 2026. The closed questions were processed quantitatively using the R software, and the open questions in accordance with Kuckartz's content-structuring qualitative analysis. Ethical standards and personal data protection requirements under the GDPR have been observed.

An important part of the methodology is related to the synthesis of a conceptual framework. This includes building an integrated model for the sustainable management of human and natural capital based on the results of the analysis. Strategies and recommendations are formulated for the targeted development of knowledge for sustainable management and for overcoming the barriers to the circular transition.

5. Assessment of the scientific and scientific-applied contributions

My thorough familiarisation with the dissertation and the candidate's abstract gives grounds for the general conclusion that the dissertation submitted for defence contains scientific, scientific-applied and applied results that represent a contribution to the development of human resource management in SMEs in the context of the transition to a circular economy.

I essentially accept the contributions claimed in the dissertation as actually

achieved, and I have grouped them as follows:

The following scientific contributions have been achieved:

1) Conceptual enrichment of the theory of human resource management in the context of the circular economy. The dissertation research proposes a concept for integrating ESG principles into the human resource management system in order to achieve sustainable business development, introducing an original definition of the synergy between human and natural capital.

2) The role of human resource management as a strategic function for building and managing sustainability knowledge is substantiated, through which existing practices can be transformed into structured ESG processes.

The following scientific-applied contributions have been achieved:

1) The problems and challenges facing leaders in human resource management in the transition to a circular economy have been identified and systematised. They are examined comprehensively and systematically on the basis of an original empirical study using a mixed-methods approach in SMEs from three sectors in Germany.

2) A generalised formula for Sustainable Leadership Oriented Transformation in SMEs (SLOT SME's) has been synthesised, combining leadership, strategic human resource management, knowledge, culture, motivation and well-being, digitalisation and partnership in a single framework.

3) A model for the sustainable integrated development of human and natural capital in SMEs in the transition to a circular economy has been developed, including a set of seven interrelated strategies.

4) A plan for the strategic reorientation of human resource management has been proposed, organised in three consecutive phases for implementing the changes in accordance with the requirements of the CSRD.

5) Recommendations have been developed that support SMEs in preparing for compliance with regulatory requirements and standards, as well as in the more effective and targeted development of knowledge for the sustainable management of

human and natural capital.

The dissertation also has the following applied contribution:

1) A relationship has been established between the level of digitalisation and readiness for ESG integration in SMEs, with enterprises with more advanced digital processes demonstrating a greater ability to collect and analyse data on resource consumption, track their environmental footprint and adapt more quickly to regulatory requirements.

The scientific, scientific-applied and applied results find their direct field of application in human resource management in SMEs in the context of the transition to a circular economy.

As a result, the aim and tasks of the dissertation have been fulfilled, and scientific, scientific-applied and applied results have been obtained that represent a contribution to enriching existing knowledge of the concepts for the sustainable management of human and natural capital in small and medium-sized enterprises.

6. Assessment of the publications related to the dissertation

The doctoral candidate Andrean Joe is the author of five publications on the topic of the dissertation, one of which is co-authored and the rest are single-authored. They have been published in scientific journals, in the proceedings of an international scientific conference and in an electronic scientific journal. The publications analyse various aspects of the topic studied in the dissertation. There is no difference between the manner, approach and analysis applied in the dissertation and in the submitted scientific articles. Their number and focus fully satisfy the requirements for obtaining the educational and scientific degree “Doctor”. This gives me grounds to accept that the dissertation is an independent creative product produced by the doctoral candidate.

7. Assessment of the abstract

The submitted abstract, in Bulgarian, with a volume of 44 pages, fully corresponds in structure and content to the dissertation I have reviewed. All

formatting requirements have been met and all necessary attributes have been included.

8. Critical remarks, recommendations and questions

The doctoral candidate Andrean Joe presents a dissertation that stands out for its good theoretical grounding and the effective link between science and practice. This gives me grounds to make specific recommendations aimed at deepening what has been achieved so far and at the future scientific development of the doctoral candidate Andrean Joe:

1) I believe that the quantitative analysis of the empirical data would benefit from the additional application of inferential statistical methods (for example, testing the statistical significance of sectoral differences and of the relationship between the level of digitalisation and readiness for ESG integration), since the main statistical approach in the dissertation is descriptive. In this way, the conclusions will be argued more convincingly.

2) I recommend that the proposed SLOT SME's formula and the model for the sustainable management of human and natural capital be further operationalised through specific measurable indicators and weights of the individual factors, and tested in the practice of specific enterprises. This will increase their applicability and the possibility of assessing the effect of their implementation.

3) With a view to the further dissemination of the candidate's scientific theses, it is advisable that in future the research be published in journals or presented at conferences indexed in the world databases, such as SCOPUS and WoS. In this way, the author's scientific theses will become available to a wider circle of interested scholars and entrepreneurs.

In stylistic and technical terms, the dissertation and the abstract are not free from a limited number of inaccuracies, repetitions and editorial errors, which do not diminish their scientific value but make the work harder to read.

The above remarks and recommendations do not diminish the merits of the research. The dissertation is a well-prepared scientific work.

9. Conclusion

The dissertation submitted by Mr Andrean Joe on the topic “Challenges Facing Leaders in Human Resource Management in the Era of the Circular Economy” complies with the requirements for obtaining the educational and scientific degree “Doctor” of the Act on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its Implementation and the Regulations for the Acquisition of Scientific Degrees at Varna Free University “Chernorizets Hrabar”. In the dissertation I found original, relevant and significant scientific, scientific-applied and applied achievements, which represent a contribution to enriching existing knowledge of the concepts for the sustainable management of human and natural capital in small and medium-sized enterprises in the context of the transition to a circular economy.

There are sufficient grounds for me to declare my positive assessment, and I propose to the esteemed scientific jury to award the educational and scientific degree “DOCTOR” in the doctoral programme “Organisation and Management outside the Sphere of Material Production”, professional field 3.7. “Administration and Management”, to Mr Andrean Joe.

26 October 2026
Sofia

Signature:
(Prof. D.Sc. (Econ.) Kiril Angelov)