

# **DISSERTATION REVIEW**

The review of Thanh Van Luu's dissertation on "Conceptual Framework of Circular Economy Adoption for Green Logistics and Sustainable Supply Chain" is based on the request of prof. Ing. David Tuček, Ph.D., Dean of the Faculty of Management and Economics of Tomas Bata University in Zlín from 22 January 2024.

#### **Topicality and relevance of the topic**

I consider the topic of this dissertation thesis to be topical especially in view of the increasing stakeholder pressure on business sustainability. Logistics and supply chain management also make a major contribution to building a sustainable business. Although sustainable logistics and supply chain management is the domain of developed countries, its importance is gradually growing in developing countries such as Vietnam.

#### **Fulfilling the objectives**

The main goal of the thesis is "to investigate/to model a conceptual framework of circular economy adoption for green logistics and sustainable supply chain". This goal is further decomposed into four research questions and corresponding four research objectives. The research questions and objectives are based on the conceptual framework being developed (see Figure 7 and Chapters 3.1 to 3.3). From this perspective, the author has omitted to include a research question and objective related to the "Circular economy framework" factor. At the same time, it would have been preferable if the author had included such specific research questions and objectives also for the case studies (Chapters 3.4 to 3.6).

After studying the dissertation thesis, I can conclude that the formulated research questions and objectives have been fulfilled. However, in my opinion, the main goal of the thesis was defined too broadly, and the research questions and objectives could not fulfil it. I comment on this discrepancy in more detail in the section "The solution procedure and results".

#### The solution procedure and results

From a conceptual point of view, it is evident, that the author had a problem with defining the main result of the thesis. This can be documented by the terminological inconsistency in defining the thesis result in their different parts: "a conceptual framework of circular economy adoption for green logistics and sustainable supply chains" (Chapter 1.2), "conceptual research framework" (Chapter 3.1.2), "circular economy model" (Chapter 3.2), "research model" (Chapter 3.3), "Integrated Industry 4.0 and circular economics model" (questionnaire in Appendix 2).

In my opinion, the most apt title is "Integrated Industry 4.0 and circular economy conceptual framework for green logistics". There are two reasons for this. First, the proposed conceptual framework includes "green logistics and sustainable supply chain transitions and practices" as one of the key researched factors. However, this factor is defined by a set of variables that are exclusively from the green logistics domain and thus do not address supply chain sustainability. Although the supply chain is included in the conceptual framework in the



form of "supply chain collaboration and configuration" factors, it is only from the perspective of one link in the supply chain and without focusing on the economic and social dimensions of sustainability. Second, to verify and validate the proposed conceptual framework, a questionnaire was used which includes the term "Integrated Industry 4.0 and circular economics model". Thus, the respondents' answers reflected this interconnection and not a separate view of the circular economy concept. Moreover, quantitative studies 5 and 6 (chapters 3.5 and 3.6) do not address the circular economy at all.

Leaving aside this conceptual contradiction, I can consider the process of development of the conceptual framework, its verification and validation to be correct. The author used a good methodological apparatus and respected the conditions of its application. The same conclusion applies to the case studies.

In terms of the content of the dissertation thesis, I appreciate that the author has defined the research gap based on the systematic literature review of foreign scientific sources, directly answers the formulated research questions and also defines the limitations of the implemented research.

## Significance development of the scientific field and for practice

The dissertation contributes both to the development of the scientific field and to practice. It outlines a conceptual framework that identifies and investigates the key factors necessary for building green logistics in line with the concept of circular economy and Industry 4.0. The framework developed provides new insights and knowledge into the issues addressed for developing countries.

#### Formality and language level

Formally, the work is of a good standard, although the author has not avoided minor mistakes from time to time. An example is the repeated incorrect reference to the key output of the thesis, the conceptual framework under development. Instead of referring to Figure 7, the author refers to Figure 3b on pages 33, 50 and 86.

Unfortunately, the language and stylistic level is poorer. The fundamental problem is with the very frequent terminological inconsistency, which I have already commented on above. At the same time, some of the formulations are too vague. For example, the formulations contained in the questionnaire are crucial for the quality of the research carried out. Both in English and in Czech they are not precise enough and could lead to misleading answers. However, I assume that in the Vietnamese language, which was used for the implementation of the questionnaire survey, the formulations are more understandable.

The clarity of the text is further reduced by the unsystematic use of abbreviations, some of which are not included in the list of abbreviations.

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## **Publication activity**

Publication activity corresponds in its focus to the topic of the dissertation thesis and in terms of the quality of publications I consider it to be above standard.

## Questions for the defence

Why were the economic and social aspects of logistics or supply chain management not included in the conceptual framework for the "green logistics and sustainable supply chain transitions and practices" factor, even though the aim and title of the thesis declare a focus on sustainability? Which sustainable variables could develop the proposed concept in this direction?

#### **Final evaluation**

Despite my conceptual comments, I appreciate the scope of the research carried out and the quality of the methodological apparatus used and therefore recommend the dissertation thesis for defence. Assuming a positive result of the dissertation defence, I recommend to award Thanh Van Luu the doctoral degree ("Ph.D.") in the study programme Economics and Management.

Mladá Boleslav, February 26, 2004

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