


See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/359637383>

SOLUTIONS AND PERSPECTIVES OF CIRCULAR BUSINESS MODELS IN THE TYRE RECYCLING –THE CASE OF LATVIA


Poster · October 2020
DOI: 10.1002/9781119761288.ch10


CITATIONS
0

2 authors:


 **Dainis Aizpils**
BA School of Business and Finance, Riga, Latvia, Europe
99 PUBLICATIONS 189 CITATIONS
[VIEW PROFILE](#)

Some of the authors of this publication are also working on these related projects:

 LIFE Waste To Resources (PI1-LIFE20-IP-EA/1000516) is implemented with the financial support of the LIFE Programme of the European Union and Latvian State Regional Development Agency. [View project](#)

 Isp-2020/0-0117: The Impact of COVID-19 on Sustainable Consumption Behaviors and Circular Economy. [View project](#)

READS
42

 **Inga Ustina**
BA School of Business and Finance
34 PUBLICATIONS 99 CITATIONS
[VIEW PROFILE](#)

SOLUTIONS AND PERSPECTIVES OF CIRCULAR BUSINESS MODELS IN THE TYRE RECYCLING – THE CASE OF LATVIA

Inga Uvarova, BA School of Business and Finance, Latvia; The University of Liepaja, Latvia

Prof. Dr.oec. Dzintra Atstaja, Miks Erdmanis, BA School of Business and Finance, Latvia

Lilita Abele, The University of Liepaja, Latvia

Tel.: +371 26434730, e-mail: inga.uvarova@gmail.com

ABSTRACT

There are major problems in the tyre waste management and recycling sector in Latvia. The paper describes the theoretical nature of the circular business models with a particular emphasis on the business opportunities of recycling and the industrial symbioses. The approbation of results presents the statistical and the financial analyses of the tyre recycling industry. The recommendations developed in the paper can be used by the policy makers and other stakeholders for further promotion of the tyre recycling sector and, in general, the Circular economy, in Latvia and other EU countries.

METHODOLOGY

A literature review has identified extant theories and concepts adopted by researchers to gain greater understanding about circular business models related to the recycling and industrial symbioses. Using statistical and financial analyses, the study explores existing situation of the tyre waste management and recycling industry in Latvia. Qualitative case studies and interviews are executed in order to analyse tyre waste management and recycling companies located in Latvia.

TERMINOLOGY

The **circular economy** (CE) proposes the treatment of environmental problems and climate change challenges, simultaneously promising benefits for the business in such encouraging change towards the “greener economy”.

The terminology of **circular business models** shows a great variety of definitions and interpretations.

“ A **circular business model** (CBM) includes the CE principles in the value creation across the value chain and in the same time demonstrate economic benefits for the shareholders of a company. The CBMs engage **reduce waste, recycle and reuse** products in order to extend their life cycle (Manninen et.al., 2018, Lahti et.al., 2018 , Uvarova et.al.,2019). ”

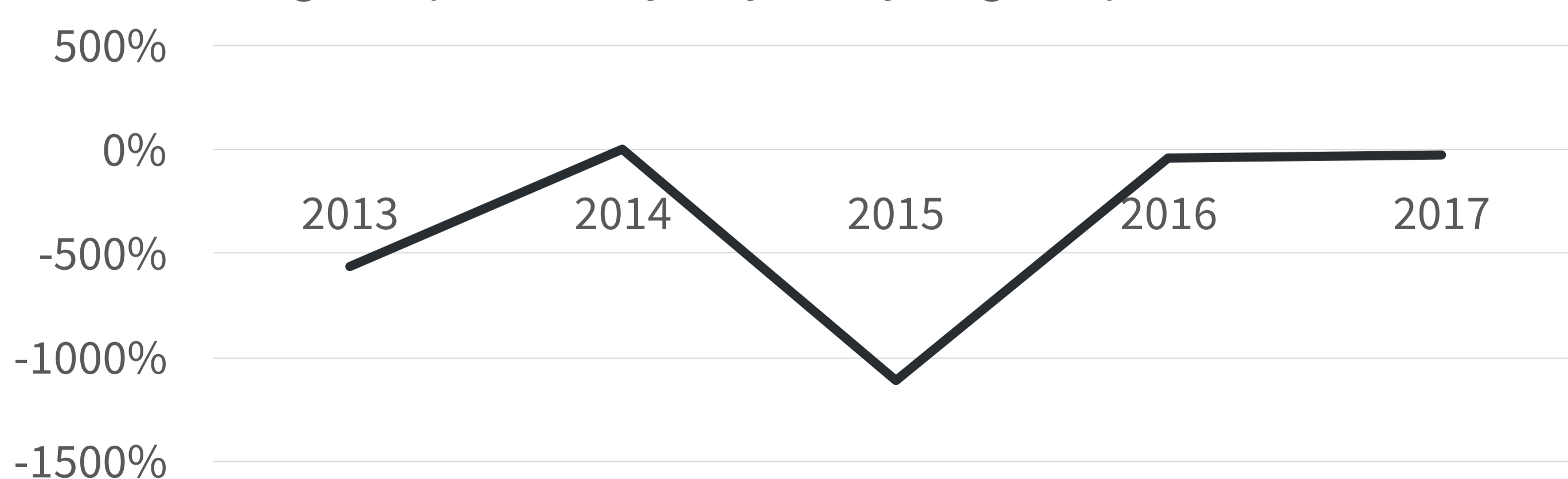
FINDINGS

There are many obstacles that affect the overall performance of tyre recycling companies.

Applying traditional business models (usually down-cycling), the lack of knowledge, the lack of dynamic capabilities for innovations and new approaches hinder opportunities to introduce CBMs.

The tyre recycling companies shall tend to adopt new “**up-cycling**” **circular business models** and the **industrial symbioses** in order to ensure that new products gained after recycling are with **higher added value, quality and profitability**.

Average net profitability of tyre recycling companies In Latvia



The following obstacles have been identified for the tyre recycling industry in Latvia:

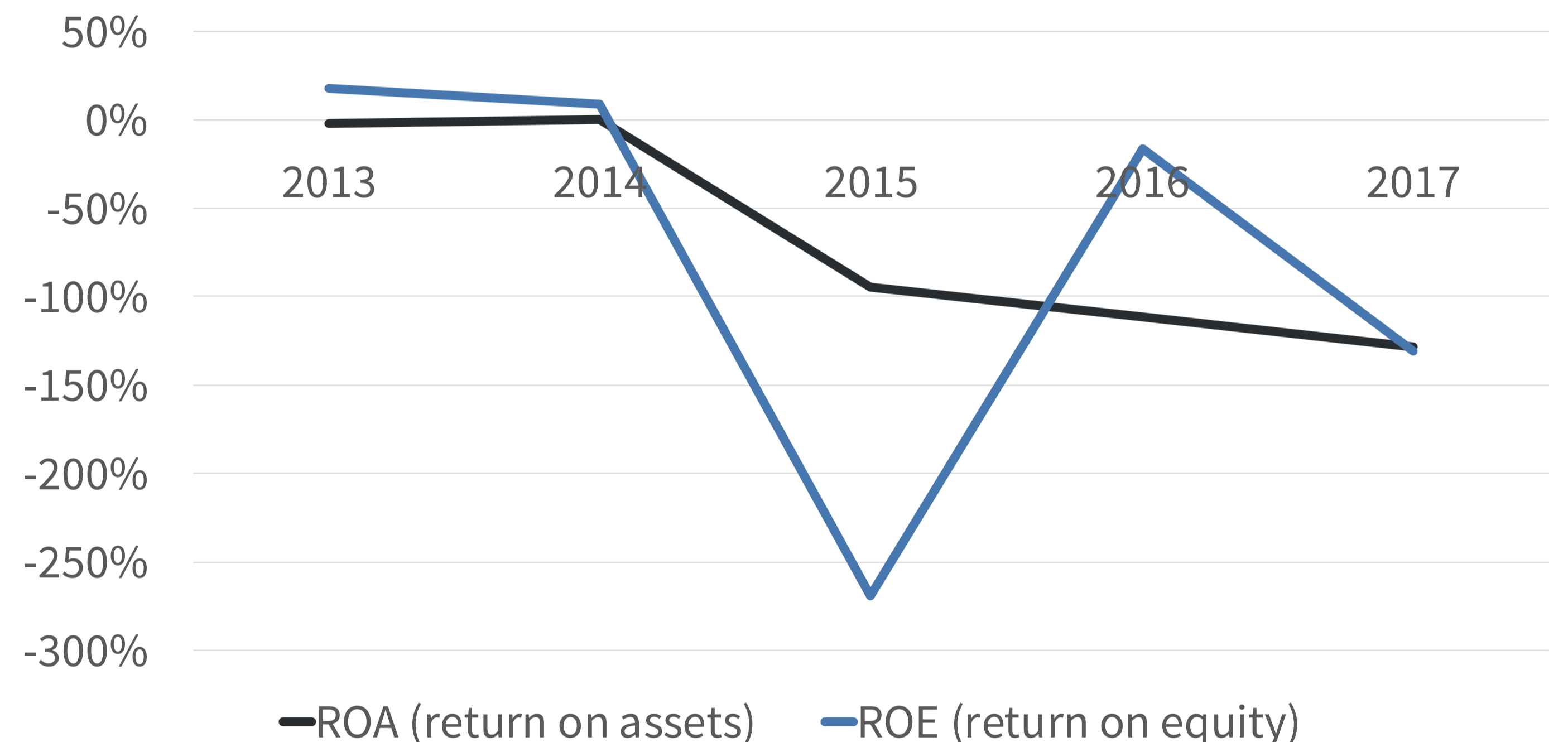
- 1 Very large stocks of “end of life” tyres and on average just 50% of them are recycled, instead they are often stored in illegal storage facilities
- 2 Companies of the tyre recycling industry apply traditional (old) business models that are not profitable and with low added value
- 3 Traditional tyre recycling business models are not efficient requiring large operating costs
- 4 Waste management companies are not interested in the tyre recycling and do not ensure supply of end-of-life tyres for recycling companies
- 5 Tyre recycling companies lack the knowledge and capacity to introduce innovative CBMs and apply the industrial symbioses

There are number of fields showing great potential opportunities for the development of the industrial symbioses with the output products of the tyre recycling. Sports industry, playgrounds, construction sector, production of the construction materials are some of industries identified.

Comparatively high production costs and investment intensive technologies do not ensure positive returns on assets and equity using traditional tyre recycling business models.

Introduction of “green public procurement” shall stimulate various sectors to consider the consumption and use of materials gained after the tyre recycling.

Average ROA & ROE of tyre recycling companies In Latvia



TOPICALITY AND FUTURE RESEARCH

The analyses show large problems associated with further economic and sustainable development of the tyre waste management and recycling industry in Latvia. This requires investigation of the feasibility and viability of new business models that are reliant with the CE principles and ensure higher profitability ratios for the businesses.

Further investigation is needed to analyse new perspectives of the development of the CBMs, identifying new products and industries relevant for the industrial symbioses with the tyre recycling industry.

This research does not investigate the influential factors posed by the relatively large proportion of the shadow economy in the waste management and tyre exploitation sector. This factors require separate deeper study.

KEYWORDS

Circular economy, circular business models, industrial symbioses, tyre recycling