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Political Institutions in the Transition to a Circular Economy for Textiles:

A Comparative Assessment of Governance Capacities in Germany, Japan, and South Korea

Topic and Research Question

The global textile sector is economically significant but associated with substantial environmental and social costs. Textile production has nearly doubled since 2000, and 73% of post-consumer textile waste is landfilled or incinerated - the equivalent of one garbage truck of garments every second. Less than 1% is recycled into new fibers of comparable quality.

A circular economy (CE) is regarded as a strategy to move beyond this 'take-make-dispose' model by extending product lifecycles, improving resource efficiency, and minimizing waste. Yet market forces alone are insufficient for this transition, and there is increasing recognition that it requires a stronger, more capable, and active state. Despite growing prominence on policy agendas, the role of political institutions remains underexamined, and comparative research on how differences in governance capacities influence CE transitions is scarce. This gap is addressed through the central research question:

"Do political institutions and their capacities play a role in fostering the transition towards a circular economy for textiles in Germany, Japan, and South Korea?"

The research interest is whether countries with strong institutional support, such as that in the traditions of the East Asian developmental state, perform 'better' in the transition towards a CE. This comparative study aims to help policymakers identify institutional weaknesses and draw lessons from governance comparisons.

State of the Art

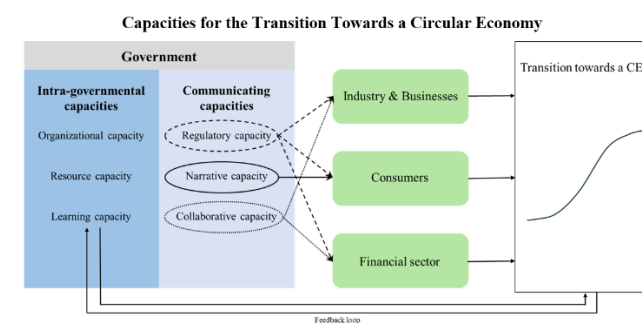
Although the concept of a CE has received growing attention, scholarly debate mainly focuses on CE definitions and terminologies and on industrial or technological aspects. Studies on textile CE generally emphasize micro- or meso-level research, such as circular business models, supply chains, process engineering, and technological innovation.

In the context of governance capacity, research remains fragmented, with most contributions focusing on one dimension or element of capacity. Jänicke (2002), Wu et al. (2015), and Van Buuren et al. (2014) provide foundational frameworks for conceptualizing and assessing governance and policy capacity. Howlett (2005) and Vedung (2017) inform the classification of policy instruments that translate capacities into concrete action. Most central for this research is De Ruyter's

(2019) governance capacity model, which builds on the Governance Capacity Framework of Van Buuren et al. (2014) and applies it to CE transitions.

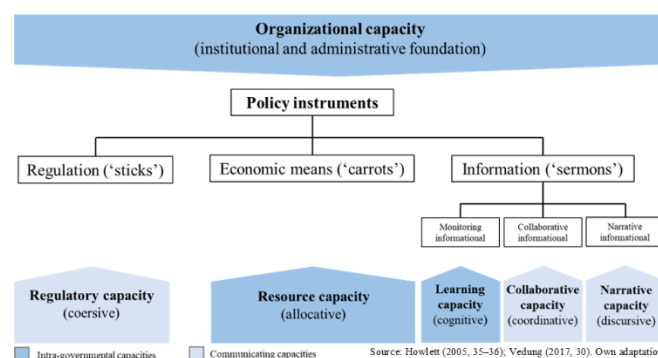
Methodology and Approach

To examine the research question, an eclectic, multidimensional analytical framework is developed, which is mainly based on the work of De Ruyter (2019) and has been further supplemented and expanded. Organizational, resource, learning, regulatory, collaborative, and narrative capacity are identified as essential to enable the transition towards a CE.



Source: De Ruyter (2019, 48). Own adaptation.

The analytical framework is divided into two dimensions: (1) Intra-Governmental Capacities, which capture the strength of the bureaucratic system and include organizational, resource, and learning capacity; and (2) Communicating Capacities, which address the capacity of governments to influence actors, such as businesses, consumers, and financial institutions, and include regulatory, collaborative, and narrative capacity.



Each governance capacity provides a steering mechanism through its assigned policy instruments, which translate potential into action. Policy instruments are seen as proxies for governance capacity and a state's ability to support the CE transition. Regulatory instruments ('sticks') operate through coercion and

authority; economic instruments ('carrots') use incentives or sanctions; and informational instruments ('sermons') aim to persuade.

Empirically, each sub-criterion is operationalized through document analysis of policy documents, government reports, and statistics, and is assessed using analytical questions, such as "Does a designated ministry or department exist?" for each of the three case studies: Germany, Japan, and South Korea.

Main Facts

All three countries designate ministries and agencies responsible for textile CE policy, address textiles as a priority area in their policy documents and have leading institutions that support the transition. This suggests that textiles are not a symbolic area but are institutionally integrated into the national CE agenda with leadership.

However, differences in intra-governmental capacities help explain how these governments are able to implement and manage the transition. Insufficient human resources in Germany and Japan may lead to implementation barriers, while Korea appears to have sufficient human resources at the central level. Financial resources and economic instruments are available in all three countries, yet the availability of financial resources does not guarantee results if human resources and administrative coordination remain limited. Differences in learning capacity are apparent. Japan stands out with official indicators and frequent evaluation. Germany and Korea face data gaps that hinder decision-making.

Learning Capacity Country Comparison Overview

Criteria	Sub-criteria	Germany	Japan	Korea
2.1.3. Learning Capacity	Monitoring System and Evaluation Are indicators related to textile CE policies in place (e.g., collection rates)? Do evaluation reports for textile CE policies exist?	No	Yes	No
	Monitoring Informational Instruments • Are DPPs or RFID systems in use?	Yes	Yes	No

Source: De Ruyter (2019, 10-12, 15-16); Vedung (2017, 33, 48, 51). Own design.

Regarding communicating capacities, no legal definition of textile waste exists in any of the three countries, which highlights the limited legislative foundation for the transition. Germany follows a framework regulation mode of governance, Japan relies exclusively on voluntary measures, and Korea adopts a hybrid mode.

Results

The empirical results show that political institutions and their capacities play a central role in supporting the

transition to a CE for textiles in Germany, Japan, and Korea, with the strength and extent of this role varying from case to case.

The analysis of intra-governmental capacities confirms that organizational capacity is strong in all three countries, while the effectiveness of institutions to mobilize human resources and to monitor and evaluate CE policies for textiles varies significantly. This illustrates that the formal allocation of responsibilities and strategic prioritization are insufficient to ensure successful textile circularity, and that the availability of human resources and robust monitoring systems is crucial for transforming ambition into concrete progress.

The results of communicating capacities indicate that all three countries use these capacities to influence actors in the CE transition but differ in terms of the bindingness of regulatory instruments, the maturity of cooperative agreements, and the institutionalization of narratives. Notably, none of these countries has yet made the transition from improved waste management to a real CE for textiles.

As the CE implementation in the textile sector is still at an early stage, several directions for future research emerge. Research could examine individual capacities, such as narrative capacity, in more depth through comparative analysis. Moreover, mixed methods involving interviews with policymakers could further deepen research.

References

All references can be found in the full version of the MA thesis available at <https://theses.univie.ac.at/>.

About the Author

Sybille Trommer is a professional dressmaker and holds the title of Diplom-Kauffrau from the Julius-Maximilians-University of Würzburg. Following different positions in Europe and China and years dedicated to raising her children, her commitment to developing her expertise and lifelong learning brought her back to academia.

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