

# The Circular Economy, the SMEs, and the State: How to Govern a Circular Institutional Change Process?

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## Abstract

The linear economic (LE) system is increasingly becoming unsustainable as its take-make-use-dispose logic mercilessly exploits the environment. As an alternative to this, the circular economy (CE) has recently gained popularity. The CE promises a more sustainable system through decreasing resource leakage from the economic system via circulating economic activities from production to consumption. However, there is not a clear blueprint on the institutionalization of the CE. To provide an answer to this problem, this research focused on the Small and Medium Entrepreneurs (the SMEs). The research was designed as a qualitative case study benefiting from the secondary data derived from the literature and found that the structural dependence of the SMEs on the existing LE system prevents them from performing proper CE actions. As a solution, the state emerges as a macro-level rule-breaker, which can play a catalyst role in the SMEs' transition to the CE. Particularly, it could provide necessary regulative frameworks, financial sources, technological infrastructures, and a circular change in consumers' attitudes, which are strategically important to drive the SMEs towards the CE system. Therefore, this paper suggests that the re-conceptualization of state-market relationship is an initial need to successfully govern an institutional change towards the CE. Additionally, a successful CE centred transition also needs a differentiated institutionalization perspective due to the uniqueness of different cases.

**Keywords:** Circular Economy, the SMEs, Institutional Change, the Market, the State.

## Öz

Doğrusal ekonomi sistemi sahip olduğu al-yap-kullan-at mantığının çevreyi acımasızca sömürmesinden dolayı giderek sürdürülemez bir hale gelmektedir. Buna alternatif olarak, döngüsel ekonomi son zamanlarda popülerlik kazanmıştır. Döngüsel ekonomi, üretimden tüketime kadar ekonomik faaliyetler arasında bir döngüsellik geliştirerek kaynak kaybını en aza indirme yolu ile daha sürdürülebilir bir sistem vaat etmektedir. Ancak döngüsel ekonominin nasıl kurumsallaştırılacağı ile ilgili net bir plan yoktur. Bu soruna bir yanıt geliştirebilmek adına bu araştırma Küçük ve Orta Büyüklükteki İşletmeler (KOBİ'ler) üzerine odaklanmıştır. Araştırma literatürdeki ikincil veriden yararlanarak nitel bir vaka çalışması olarak tasarlanmıştır ve KOBİ'lerin mevcut doğrusal ekonomi sistemine olan yapısal bağımlılıklarının döngüsel ekonomi merkezli eylemleri tam anlamıyla gerçekleştirmelerini engellediğini bulmuştur. Bu soruna çözüm olarak, devlet, KOBİ'lerin döngüsel ekonomiye geçişlerinde katalizör rolü oynayabilecek makro ölçekli kural kırıcı bir aktör olarak öne çıkmaktadır. Devlet, KOBİ'leri döngüsel ekonomi sistemine yönlendirmek için gerekli mevzuatı, finansal kaynağı, teknolojik altyapıyı ve tüketici tutumlarında döngüsel bir değişikliği sağlayabilir. Bu sebeple, makale döngüsel kurumsallaşma sürecinin başarılı bir şekilde yönetilebilmesi için devlet-piyasa ilişkilerinin yeniden kavramsallaştırılmasının öncül bir gereklilik olduğunu önermektedir. Buna ek olarak her vaka kendi şahsına münhasır olduğundan başarılı bir döngüsel ekonomi dönüşümünün ayrıca farklılaştırılmış kurumsallaşma bakış açısına ihtiyacı vardır.

**Anahtar Kelimeler:** Döngüsel Ekonomi, KOBİ'ler, Kurumsal Değişim, Piyasa, Devlet.

## Introduction

The idea of the CE emerged as a sustainable response to the failure of the existing linear economic system. The LE was gradually institutionalized as a global economic system after the industrial revolution. Its linear logic targeting further consumption depends on “take-make-use-dispose” of resources (Andrews, 2015). However, the vulgar extraction of raw materials for production, fossil-based energy usage, and the ignorance of the depletion of the environment in economic actions are accelerating climate change and worsening resource scarcity and the socio-economic inequalities in the world (Mihai & Minea, 2021). Therefore, it is clear that the LE is becoming increasingly unsustainable. To illustrate, the UN launched its Agenda 2030 and Sustainable Development Goals (SDGs) to trigger an institutional change from the LE to a more sustainable one (Rodriguez-Anton et al., 2019). Here, two assumptions of the LE logic could be given as the main reason behind the above-mentioned growing unsustainability. Firstly, the LE was institutionalized on the assumption that the Earth has unlimited resources, and this assumption strongly shaped all kind of economic actions from production to consumption in the LE. Secondly, the exploitation of the environment is assumed as a necessary act to create economic development/growth; thus, the environmental damage is considered as a side effect of economic actions. As a response to the unsustainability originating from these assumptions, the CE arises as an attractive sustainable alternative. The CE mainly aims to develop a circular connection among economic actions from production to consumption, and in this way, resource leakage (and waste) will be limited as much as possible. Moreover, a circular system limiting the resource leakage will not only automatically make the economic development/growth more sustainable by easing the resource scarcity problem, but also protect the environment because increasing circularity of resource in the economic activities means less exploitation of the environment (Ghisellini et al., 2016; Julian Kirchherr et al., 2017; Korhonen et al., 2018). Particularly, the increasing

circularity of resources among economic actions will decrease the extraction of raw materials, usage of fossil energy sources, and waste and emission output (Ghosh, 2020).

After the realization of the climate crisis as an output of the linear economic activities in the 1970s, the environmental measures initially aimed to restrict economic activities, and consequently they were not popular in the business world (Kaplan, 2022). The business world became sceptical against prohibitive environmental measures in the LE system (Hillary, 2000; Revell et al., 2010). However, the CE started to change this sceptic attitude as it promises sustainable economic prosperity in line with the environmental protection. For example, the U.S Chamber of Commerce (USCC) (2022), which is famous with its historical scepticism against the environmental measures, urges its members to adopt the CE oriented business practices. In other words, the CE is an economy-oriented approach and aims to protect the environment without limiting economic actions but wants to make these actions more appropriate to the environment (Geissdoerfer et al., 2017). On the other hand, “circular principles need entrepreneurial innovative spirit to become reality” (Zucchella & Urban, 2019, p. vi). This is the reason why circular entrepreneurship appeared in the literature as an important concept, and Zucchella and Urban (2019, p. vii) conceptualizes circular entrepreneurship as:

*“The processes of formation and exploitation of opportunities, using both commercial and ecological logics to address environmental challenges with the aim of closing, slowing and narrowing the loop of resources and regenerating/reconstituting natural capital.”*

In this regard, the SMEs’ ability to play this circular entrepreneurship role emerges as an interesting point as they constitute the core of the world economy. In particular, their CE oriented actions are strategically important to create a sustainable circular socio-economic system across the world (Dey et al., 2020; Lessidrenska, 2019). However, the creation of a sustainable circular socio-economic system does need proper CE actions (but not imitative actions), and this means a paradigm shift from the LE to the CE. Here, a

paradigm could be considered as a logical structure producing a particular cognitive process and specific behavioural patterns, and social institutions as an outcome of this cognitive process (Perlmutter & Trist, 1986). Therefore, actions taken within a particular paradigm are actually the products of this paradigm and there is less chance to change a paradigm through its own products. From this point of view, if the SMEs' limited institutional capacity is considered, some doubts arise about the extent to which they could play a circular entrepreneurship role in transition from the existing LE system to a new CE system (achieving a paradigm shift from the LE to the CE). Put differently, if they could not perform proper CE actions due to their structural limitations, their pseudo-CE actions may not trigger a systemic change from the LE to the CE. For example, Rovanto and Finne (2022) found that some firms take imitative CE actions without having the necessary knowledge of the CE even in Japan which is one of the most successful countries practicing the CE actions. In other words, the structural dependence of the SMEs on the existing linear economic system might actually produce economic actions appropriate to the LE system rather than a true transition to the CE, and an institutional change towards the CE could be hardly possible. At this point, the state with its regulative power emerges as a rule-breaker actor and could play a catalyst role in the transition of the SMEs towards the CE (see: Chang, 2002).

In line with these arguments, this research is devoted to analysing the question to what extent the SMEs could play a circular entrepreneurship role and how the state could ease the structural limitations preventing the SMEs from taking proper CE oriented actions. The first section drew a theoretical framework by benefiting from the new institutionalism and developed hypothetical explanations about how the existing institutional structure (the LE) could limit the SMEs' CE oriented actions and why the SMEs might need the help of the state to perform proper CE actions. The second section aimed to investigate the validity of these hypothetical arguments. Therefore, this section formulated a methodological framework,

which enabled the researchers to access different empirical studies across the globe and qualitatively analyse the secondary data derived from these studies to test the hypothetical explanations proposed in the theoretical section.

### Theoretical Framework

Despite the SMEs' increasing motivation to practice circular entrepreneurship, from the institutionalist theoretical point of view, it could be argued that their institutional dependence on the existing LE institutional structure might dilute this motivation. In a general manner, "[i]nstitutions consist of cognitive, normative, and regulative structures and activities that provide stability and meaning to social behaviour" (Scott, 1995, p. 33). Moreover, an institution is a comprehensive structure which "operates at multiple levels from the world system to subunits of organizations" (ibid., p. 34). In line with this conceptualization, North (1994, p. 361) argued that if an institution is the rules of the game, actors are the players, and the rationality of actors urges them to play the game within its rules. Therefore, according to the institutionalist doctrine, continuity (playing the game according to its rules) is a more possible expectation than change for the future of an institution (Conran & Thelen, 2016). Here, exogenous shocks (e.g. climate crisis) emerge as the main reason behind an institutional change (Pollack, 2009), and the ideas attractive to actors (e.g. the CE) in a crisis time could be considered as a catalyst triggering an institutional change. For example, North (2005) pointed out the importance of ideas in rational actors' institutional change decisions. A rational actor might take an institutional change decision, but this change process does not take place in a linear way, and it actually takes place under the gravitational power of the existing institutional structure. Particularly, Historical Institutionalism (HI) claims that the path-dependence on the existing institutional system even affects actors' institutional change attempts (Streeck & Thelen, 2005).

In a more concrete manner, it could be argued that the common knowledge (the CE makes

economic growth sustainable) and experiences (unsustainable practices of the LE) might drive the SMEs towards an institutional change from the LE towards the CE. However, the SMEs' cognitive map institutionalized in the existing LE system might still shape their actions in the institutional change process (Lin, 1989). Firstly, the increasing returns in the LE system might make a swift circular change costly to the SMEs, and they might prefer a gradual change from the LE to the CE, but the extending time period in a change process increases the structural influence of the existing system on actors (Pierson, 2000, 2004). Secondly, historically institutionalized way of rational thinking in the LE system might produce particular actions under the isomorphic influence of existing system, and the accumulations of these actions do not provide an institutional change (see: DiMaggio & Powell, 1983). Regarding these theoretical points, the SMEs do not have an organizational competence like what the multinational corporations have in the transition process from the LE system to the CE system. For instance, Huawei is developing its own global recycling system and urging its partners to get involved in it, and IKEA is developing circular designs for its products (Zhu et al., 2022), but the SMEs do not have this kind of transformative power. As a result of this structural weakness, they are relatively more open to the isomorphic effect of the existing LE paradigm. Furthermore, the CE has three main principles: recycle, reduce, and reuse. While the implementation of the recycle principle does not need any comprehensive competence, the principles: reduce and reuse need further abstract thinking and complex organizational skills (Kirchherr et al., 2017). Therefore, the increasing complexity of the CE principles might increase the isomorphic influence of the existing LE paradigm on the SMEs' circular actions.

All these institutionalist analyses point out the fact that the dependence of the SMEs on the existing LE system is structural, and this structurality raises the question to what extent the SMEs as the micro-level actors allow for carrying out an institutional change towards the CE. From the institutionalist theoretical point of view, these micro-level actors' actions, which are considered

as CE oriented at first glance, might actually maintain/strengthen the functioning of the existing LE system rather than achieving an institutional change towards the CE due to the mentioned structural dependence (e.g. see: Gunderson & Holling, 2002). In other words, the SMEs' bottom-up change initiatives may not be enough to achieve a transition from the LE to the CE, and at this point, the state's top-down regulative measures might be needed to pave the way for a proper institutional change process. Here, it should be noticed that the state with its regulative power is already a significant change agent in the market (see: King & Pearce, 2010; Smallbone & Welter, 2001). Particularly, its strong institutional capacity (e.g. institutional rationality and bureaucracy) enables the state to govern a grand institutional change from the LE to the CE (see: Spruyt, 2013). The state's institutional rationality gives it a cognitive ability to decide on proper actions necessary for a true institutional change and its bureaucratic competence gives it the power to implement this decision. Thus, state regulations might be needed to decrease the dependence of the SMEs on the existing LE system and to encourage them to perform proper CE actions (see: Chobanova, 2020).

### **Methodology**

This research focused on the SMEs as a case to see to what extent they could play a circular entrepreneurship role in the transition from the LE to the CE. The research mainly aims to provide generalizable knowledge about the extent to which the existing linear economic structure limits the SMEs' CE actions and how the state regulations could ease this limitation. Here, to increase the generalizability of the findings, the research needs to access different cases across the world as much as possible. This means that the research needs a methodological framework enabling exploratory research in different real-life settings. Therefore, it was designed as a qualitative case study as this method is highly effective in exploring the relationship between the theoretical arguments and their real-life practices (Stake, 2005; Yin, 2003). Moreover, beyond discovering any kind of quantitative correlation/regression between

variables, this research wants to deeply understand how the state could help the SMEs to deal with their structural dependence on the existing LE system. In other words, the research aims to obtain in-depth understanding about the role of the state in the SMEs' CE oriented actions, and the qualitative case study is an effective method for this kind of research. Related to this point, the qualitative case study method also helped the researchers to develop a theoretical insight, which was crucially important to explain abstract social phenomena (e.g. the structural influence of the LE on the SMEs' actions) (Mazumdar & Geis, 2001). This means that a new logical structuration of observed phenomena through researchers' re-evaluation/interpretation might help to see previously unnoticed social relationships or facts (see: Peshkin, 2000).

The research applied a systematic literature review to collect relevant data from different countries and sectors on the SMEs' CE centred actions. To this end, the research used Google Academy rather than Scopus or WOS to access the previous case studies as some master's theses and workpapers might contain valuable data. "Circular economy" and "the SMEs" were the main keywords to access the relevant articles. In line with the theoretical framework given above, a screening process was carried out and 55 articles were identified. After the identification of the relevant articles, a detailed reading of them was performed. Subsequently, the findings of these articles were re-evaluated according to the logical framework established in the theoretical framework section and new syntheses were developed to answer the research question (Denyer & Tranfield, 2009, Xiao & Watson, 2019). Put differently, this qualitative case study performed an interpretive analysis to give structure and meaning to the separate findings of different studies; otherwise, these findings stand in the literature irrelatively (see: Trent & Cho, 2014). For example, the re-evaluation of the findings of the accumulated case studies confirms the hypothetical argument that the existing LE system limits the SMEs' CE oriented actions, and the state could ease this structural limitation. Moreover, the

accumulation of these findings also points out bureaucracy, finance, technology and culture as four main fields where the state could help the SMEs to act proper CE actions. As a result of the re-evaluation of the different findings of different research, this study could develop a synthesis arguing that an effective CE oriented institutional change process initially needs the re-conceptualization of state-market relationship in conformity with the circular paradigm.

The research focuses on the SMEs and their relationships with the market and the state as abstract social phenomena; thus, it needs samples from different countries and different sectors. At this point, collecting a mass primary data set from different countries and sectors is far beyond the scope and capacity of this research. However, the findings of previous case studies conducted in different countries provided the necessary secondary data to carry out this qualitative case study. Moreover, the generalizability of the findings of the case study method is criticized in the social science methodology literature (see: Gomm, Hammersley & Foster, 2000; Tsang, 2014). However, by using the secondary data derived from numerous empirical studies carried out in different countries and different sectors, this qualitative case study also tries to overcome this limitation. In addition to this, making extensive references to the relevant literature also strengthens the external validity of the research analyses.

As a result of its qualitative nature, the following section gives the main findings verbally in an institutionalist logic which was developed in the previous section.

### **The Findings and Further Discussions**

One of the main findings of the research is that the SMEs greatly depend on the existing LE system and this structural dependence inhibits the SMEs' proper transition to the CE. For example, by studying 162 different SMEs in India, Luthra et al. (2022) argued that the short-term goal seeking structural tendency of the SMEs is one of the main structural barriers slowing the adoption of the CE

actions. Here, the main reasons behind this short-term goal seeking tendency which prevent the SMEs from performing proper CE actions are the lack of capabilities (expertise) and resources (e.g. human, financial and technological resources). The other side of the coin is this structural factor also explains why the CE oriented start-up firms have a better performance than the firms conventionally established in the LE system while adopting the CE principles (De Mattos & De Albuquerque, 2018; Ghisellini, Passaro, Quinto, et al., 2021). Therefore, the macro-level regulatory frameworks developed by governments emerged as the necessary measures to deal with these structural barriers (see: Dey et al., 2022; Forsander, 2022; García-Quevedo et al., 2020; Horbach & Rammer, 2020; Luthra et al., 2022; Min et al., 2021; Mura et al., 2020; Rizos et al., 2016; Torres-Guevara et al., 2021). As an empirical example, a survey conducted by the network TNS Political & Social in 2016 with 10618 companies across the EU showed that 34 per cent of participant SMEs faced complex administrative or legal procedures in their CE practices, and 32 per cent of them were unhappy with the cost of meeting the regulations (Díaz-García et al., 2020, p. 22). Garrido-Prada et al. (2021) also found that red tape is an increasing cost for the SMEs in the EU to practice the CE oriented actions. Moreover, Min et al. (2021) argued that the CE regulations and laws are needed to consider the SMEs as an essential transformative actor to create a CE ecosystem. Within this ecosystem, it will also be easier for the SMEs to develop circular relationship with other stakeholders (Sohal et al., 2022). For instance, the SMEs in Japan and the EU have more well-organized and effective circular actions compared to the USA thanks to their better CE policy frameworks (Saidani et al., 2019). The EU initiated a macro-level action plan in 2014 and revised it in 2015 and 2020 (EC, 2014, 2015, 2020). In the same vein, Japan launched a legal framework in 2001, which drives the Japanese firms' actions towards the CE. However, the USA does not have a similar legal framework (EPA, 2021). As another example, Ratner et al. (2021) point out the lack of the macro-level policy frameworks as an important reason behind why the Russian firms lag behind the EU firms in

performing circular actions. In this regard, Cantú et al. (2021) also argue that the poor regulative power of the emerging countries compared to the developed countries is an important structural reason for the SMEs in the emerging countries lagging behind the ones in the developed countries. Additionally, Horbach and Rammer (2020) put emphasis on smart regulations to push firms towards novel CE practices. In this regard, green taxes could be given as an example of these smart regulations (Bajnóczy et al., 2021). The smart regulations should also contain clear definitions/rules targeting the institutionalization of the CE, and in this way, they could push the SMEs towards the CE actions. Otherwise, a waste legislation formulated within the linear paradigm might define secondary resources as waste, and this regulative definition might limit the SMEs' consideration of these resources in their reuse actions (Kerstjens, 2021). From this point of view, governmental regulations might increase the awareness of the SMEs, and the high level of awareness is a strategic condition for grasping the opportunities of the CE (Forsander, 2022). To illustrate, Tedesco et al. (2022) found that the lack of awareness of the opportunities of the CE as a big problem limits the implementation of the CE in the Brazilian planted tree sector.

The SMEs also need governmental regulations to access necessary financial sources to reconstitute their businesses according to the CE principles as the existing financial system institutionalized within the linear paradigm does not properly comply with their circular business actions (Gonçalves et al., 2022; Ozili & Opene, 2021; Toxopeus et al., 2021). Demirel and Danisman (2019) found that the SMEs need to invest 10 per cent of their revenues in the CE to receive economic growth returns, but this percentage is too high and it makes the adoption of the CE implementations unconvincing for the SMEs. With regard to this point, the SMEs need both public funds/subsidies and necessary governmental regulations to develop a circular financial system. As an example, after analysing 87 Spanish firms, Aranda-Usón et al. (2019) conclude that public funds and subsidies are a strategic need in promoting circular businesses. Min et al. (2021)

also argued that the Chinese SMEs in the circular businesses need a special financial treatment. In terms of governmental subsidies, a research carried out by Centobelli et al. (2021) supports the argument that governmental subsidies and tax benefits could be a great incentive for the SMEs to practice the CE actions. In the same vein, Milios (2021) found that the waste hierarchy tax and government subsidies might highly increase the performance of the recycling sector by studying Sweden. Nudurupati et al. (2022) produced similar results after analysing Indian SMEs in different sectors. In line with these studies, Garrido-Prada et al. (2021) also argue that the research and development (R&D) activities for the CE should be carried out by governments instead of the SMEs, and these activities will become indirect subsidies to the SMEs due to high costs of the R&D activities. In a similar way, Fernando et al. (2022) claim that “the agro-based industry’s waste as the main source to produce energy can be processed in mass production if the [Malaysian] government provides subsidies on the technology”. Additionally, the CE oriented public procurement mechanisms can be considered as another governmental mechanism which could drive the SMEs towards the CE oriented actions (Husgafvel et al., 2022). In addition to direct public funds, the SMEs also need a circular financial market. A Chatham House report argue that an inclusive circular financial system is still missing in the world despite the desperate need for a more sustainable circular system (Schröder & Raes, 2021) simply because “financiers find CE innovations riskier than standard innovations” (De La Cuesta-Gonzalez & Morales-García, 2021). As a result, the SMEs face difficulties in accessing necessary financial sources for their circular transition (Díaz-García et al., 2020). For example, Ellen MacArthur Foundation (2017) figured out that the EU should invest €320 billion by 2025 to achieve a circular transition in its market, but still the financial mechanisms for this large scale of investment are not clear, and the linear financial system is not willing to invest in “suboptimal circular economy projects and companies” (Dewick et al., 2020). As a result, the state’s

regulative power is needed in this sector to develop a benign financial atmosphere for circular entrepreneurs.

The SMEs also need high technology to perform the CE actions (Huynh, 2021). For example, Sharma et al. (2021) points out “technology up-gradation” as a major prerequisite for the implementation of the CE by the SMEs. Pizzi et al. (2021) maintain that digital platforms could provide the start-up CE firms with a high degree of flexibility through which they could deal with the above-mentioned structural dependence problem and develop circular ecosystems. In the same vein, Silva and Sehnem (2022) argue that the usage of the industry 4.0 technologies could help the CE start-up firms to implement the CE principles. Despite this need, the lack of high technology is another major structural barrier which impedes the SMEs’ transition progress towards the CE in the world (Grafström & Aasma, 2021). To illustrate, Ormazabal et al. (2018) observed this structural impediment for the Spanish SMEs; Min et al. (2021) for the Chinese SMEs; Gedam et al. (2021) for the Indian SMEs; and García-Quevedo et al. (2020) for the European SMEs. In general, the SMEs depend on the existing technology in the LE system contrary to multinational companies which could achieve circular technology development through their R&D activities (Rizos et al., 2016). For instance, Oncioiu et al. (2018) carried out a survey with 196 Romanian SMEs and found that none of them invested circular technology from 2013 to 2018. The lack of high technology is an abstract problem and might cause a more long-term structural barrier deterring the SMEs’ transition to the CE (García-Quevedo et al., 2020). Particularly, the circular technology does not need ready-made universal solutions but specifically tailored innovative solutions to the SMEs’ specific needs; thus, the SMEs should become the main innovators of the CE in their economic actions, but their limited competence in R&D significantly limits them from playing this innovator role (see also: Manniche et al., 2017). Furthermore, the accession to necessary technology is a bigger problem in the developing world for the SMEs due to their poor

national infrastructure (e.g. see: Cantú et al., 2021; Odongo & Thomsen, 2021). As a result, the SMEs desperately need the state help/policies to access circular technology to trigger a bottom-up circular transition (Rodríguez-Espíndola et al., 2022).

Last but not least, the SMEs are highly sensitive to consumer attitudes in the market; thus, they cannot change their economic actions from the LE to the CE without a change in consumer attitudes towards the CE (Kazancoglu et al., 2021; Piller, 2022). However, as micro-level actors, they do not have power to achieve this change in consumer attitudes. As a result, this fact increases their dependence on the LE oriented actions. On the other hand, as a macro-level actor, the state has the bureaucratic power which could shift consumer attitudes towards the CE, and in this way, it could decrease the structural influence of the existing LE system on the SMEs. For example, there are several studies in the literature which empirically show that government incentives are a necessary condition for directing consumers' intention to use remanufactured products (e.g. see: Abbasi et al., 2022; Badhotiya et al., 2021; Hazen et al., 2017; Pisitsankhakarn & Vassanadumrongdee, 2020; Singhal et al., 2019; Singhal et al., 2020). Furthermore, Hazen et al. (2017) argue that the governmental regulations and taxes might shift consumers' choices from new products towards remanufactured products; however, every nation should develop its own policies and the SMEs should be part of this policy-making process. At the same time, Pisitsankhakarn and Vassanadumrongdee (2020) argue that firms cannot make product quality and price improvements for remanufactured products without the active involvement of government. For instance, an eco-labelling scheme arranged by a government might significantly change consumers' attitudes towards remanufactured products (Gåvertsson et al., 2020). In addition, Zhou and Yuen (2020) point out the importance of governmental subsidises in driving consumers towards the remanufactured products (see also: Wang et al., 2022). Additionally, a change in consumer attitudes also needs a broader cultural change and this might only be possible through the state intervention (Kirchherr et al., 2017).

## Conclusion

The existing LE system is increasingly getting more unsustainable as its take-make-use-dispose of logic causes significant resource leakage from the economic system and serious environmental damage. In respond to this increasing unsustainability in the LE system, the CE emerged as a more sustainable economic system. The CE mainly aims to develop circularity between economic actions from production to consumption in order to prevent the resource leakage from the economic system, and the prevention of resource leakage will automatically result in more economic prosperity and better environmental protection. However, there is not any clear blueprint on how to manage the transition from the LE system to the CE system. To contribute an insight into this issue, this research focused on the SMEs as a case because they constitute the core of the global economy. In particular, it analysed the extent to which the SMEs' structural limitation could dilute their circular entrepreneurship role in the market, and how the state could ease this structural limitation and encourage the SMEs to implement proper CE actions. To do this, the research was designed as a qualitative case study and the secondary data derived from the relevant literature was analysed within an institutionalist theoretical framework.

The primary finding of the research is that the structural dependence of the SMEs on the existing LE market mechanism prevents them from taking proper CE actions. In other words, within the linear paradigm, they are too small to produce deliberative actions triggering a paradigm shift towards the CE. At this point, the state emerges as a macro-level actor with its strong institutional capacity as a rule-breaker. Firstly, the SMEs need regulative frameworks which could drive them towards CE actions. For instance, the regulations enacted according to the LE paradigm might constitute obstacles to the SMEs' CE oriented initiations, or the lack of a necessary CE regulation might inhibit the performance of CE actions by the SMEs. Secondly, the SMEs need the state to access vital financial sources to perform CE actions. In this regard, the state should provide direct



financial support and indirect governmental subsidies and tax benefits to the SMEs, and enact regulations to develop a circular financial market as the existing linear financial market is highly sceptical to the circular entrepreneurship. Thirdly, the circular technological infrastructure is too expensive for the SMEs; thus, the state is needed in the establishment of this infrastructure. Finally, the SMEs are highly sensitive to the attitudes of consumers, but again they are too small to change their tastes. Thus, the current attitudes of consumers shaped within the linear paradigm stands as another structural impediment in front of the SMEs, and the state has a hegemonic power which could drive consumers' attitudes towards the CE oriented consumption. To illustrate, the SMEs could not produce remanufactured goods in a society where the consumption of remanufactured goods is considered as a lower social status.

As a result, this research argues that the SMEs' intention to play a circular entrepreneurship role in the transition from the LE to the CE might create an illusion that the market dynamics will be enough to trigger an institutional change from the LE to the CE. However, a proper institutional change towards the CE also needs the state's top-down regulative policies. From an institutionalist point of view, the market dynamics were institutionalized according to the LE principles; thus, the actors in the market like the SMEs suffer from the path-dependence on this LE oriented institutionalization. The dependence on the existing LE structure means that an institutional change towards the CE might hardly be possible through the market dynamics and the state intervention might be needed. In line with this argument, Chistov et al. (2020) also emphasize the importance of the state regulations in transition from the LE to the CE due to the market gap in terms of the CE oriented actions. According to them, however, the state regulations should not directly target the market, but the actors in the market to encourage them to perform proper CE actions. In conclusion, this research argues that as the institutionalization of the CE system needs the state intervention in addition to the market

dynamics, the new circular paradigm will need the re-conceptualization of the market-state relationship to institutionalize a more sustainable circular system (see also: Ghisellini, Passaro, & Ulgiati, 2021). In this regard, as every country, region or sector has its own unique traits, a successful transition to the CE also needs differentiated institutionalization. As noted above, every CE centred transition case might require different regulative, financial, technological, and cultural treatments. Therefore, from an international political economy perspective, future studies might focus on the questions; how to re-conceptualize the market-state relationship in a circular paradigm and how differentiated institutionalization as a principle could be embedded in national CE policies.

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