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Circular economy – the silver bullet for environmentally sustainable profitability?

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By now it is probably safe to say that circular economy as a concept has moved from a weak signal to a megatrend. Academic literature on the topic has increased dramatically (Geissdorfer et al., 2017) and along with the literature, businesses have realized they need to adapt their way of generating social, environmental and economic value when faced with the urgent resource scarcity and climate challenges (Epstein, 2018). However, most of the rhetoric thus far has focused on creating circular economies on a systems level or societal level (European Commission, 2015, MacArthur et al. 2015, EEA 2016 and others), whereas less work has been done on highlighting the business benefits of circular economy models from the perspective of the individual company.

The circular economy advocates often claim that circular economy is the best and easiest way to make more efficient use of resources, and to reduce resource dependence and waste generation. Besides favorable environmental impacts, circular business models would provide profitable growth opportunities, improve competitiveness, and promote innovation. But despite all potential benefits of circular economy, most companies have not yet seized its potential. For this reason, even the widespread and profitable benefits of circular economy will often only remain academic training and political rhetoric.

Circular model adaptation lacking behind expectations

Why, despite the assumed clear benefits of moving from a linear economic model to a circular model, is it often so painfully slow? How can the transformation be facilitated and accelerated?

One of the reasons for the low utilization of circular models may be that traditional linear business models are often still more advantageous for companies, because the full cost of using resources is not yet included in the final cost of products or services. While many companies prefer traditional business models because of lower costs, most companies do not know how to integrate circular economy models into existing business models. So far, few companies have truly focused on innovating new business models, where circular models would be in the core of operations. In addition, companies are largely unsure of

the potential reactions of customers or consumers to moving towards resource-efficient circular models.

It can be argued that companies could potentially achieve competitive advantage by using circular strategies, especially in terms of efficient material circulation and through transition to service-based models (Seppälä et al. 2015). Circular business model differs from linear business model in attempting to close the loop of resource usage and by taking into consideration also the benefits from societal and environmental perspectives (Antikainen and Valkokari 2016). The ambition of a circular business model is to reduce resource consumption and resource dependency, to keep resources in circulation for as long as possible, and to create as little waste throughput as possible. The circular economy business models demand companies to be involved in the product life cycle for a longer period of time than in the linear model; especially since companies need to plan and design not only the product use phase but also disposal and recovery. (Antikainen and Valkokari 2016.)

What is required of businesses?

Companies need to be ready to innovate or reinvent their business models to make them incorporate the notion of circular economy. These changes may include new value propositions, potentially new customer segments, new distribution channels, novel products and services and different revenue models (Mentink 2014, 4).

Dutch sustainability and circular economy consultant Daan Elffers suggests companies to adopt a four-phase process to start embarking on their circular economy journey. The process starts with setting goals and creating an action plan and then goes straight into educating and activating the organization. These steps are followed by innovating and optimizing as well as finally engaging. Incidentally, the exact same steps are also provided for example by impacX team. Finnish Future's Fund SITRA has gone so far as to develop an entire and robust step-by-step playbook to help companies implement circular economy.

While all these comprehensive approaches describe straightforward ways to implement circular models, our experience shows that certain things are worth highlighting more than others. And since it has proven to be mind-blowingly challenging to change the prevalent linear model, companies might need to have some consistent nudges to speed them along.

Identifying and selecting opportunities

While the wide-scale adaptation of circular principals across the business operations has turned out to be difficult, there is no doubt that the potential is

there. When a company considers investing in circular solutions, the environmental sustainability benefits are often easily identified. But companies often find it problematic to justify the circular economy efforts from the financial perspective. Can the new solutions bring new business? Can we implement them in a profitable way?

A logical way to approach this dilemma is to search for areas where circularity could be implemented, and then consider the potential benefits. The basic concept of circular economy is built on the idea of maximizing the use of resources through re-cycling and reuse, prolonged lifespans, and sharing solutions. In any system, where there is room for improvement in these areas, there is room for circular solutions. Value is lost in the materials and capacities that individuals and companies throw away or leave unused. This applies to companies, but also the societies around us in general.

These inefficiencies related to not-optimally used materials or capacities create opportunities across the value chains, and companies can tap into these opportunities by understanding how they could provide customer value through addressing these inefficiencies – through circular business solutions.

Businesses typically manage portfolios of development initiatives. To be financed and resourced properly, circular initiatives must be prioritized high enough against other opportunities. When considering the initiatives, it is important to understand and agree, what is meant by circular initiatives. The basic definition of decoupling economic value generation and resource consumption is widely agreed, but what does it mean in practical terms? What initiatives deserve to be called circular in company's vocabulary?

In our view, a circular business initiative could be:

1. A closed loop business model development initiative, such as developing a business model to provide a secondhand market for used products.
2. A closed loop operational capability development initiative, such as a process to return of production waste into manufacturing process.
3. An improvement initiative that enables the building of circular models. While these initiatives will not directly create circularity, they are critical in implementing circular solutions. Initiatives in this category could include improvements in product design modularity, value chain end-to-end bill-of-materials visibility, digital capabilities, overall process simplicity, logistics optimization etc. In many cases, the actual circularity can be economically built only, if these capabilities are in place.

When comparing potential initiatives, a company should decide on the criteria to be used in scoring and selecting the best candidates. In the case of circular solutions, the parameters could include e.g.:

- Environmental sustainability impact
- Customer need or precise benefit
- Other external need, demand, or regulation
- Favorable short term business impact
- Long term business opportunity
- Investment requirements to develop the capability
- Fit with current strategy and objectives
- Identifiable clear ownership within organization, match with existing real-life case
- Implementation effort, such as complexity across the ecosystem
- Competitive value, good-will value

By rating initiatives using these or similar criteria, business can choose the areas where investments make most sense.

One of the participants in the recent Digisti Live project by Haaga-Helia was Straquest, a specialist strategy consultancy focused on understanding and de-cluttering organizational complexity to achieve results, clarity, and simplicity. During the Digisti Live project Straquest refined its approach for selecting circular initiatives. The approach includes several consecutive but overlapping steps. Scoping and objectives setting is followed by an array of stakeholder interviews to set the landscape, ideation workshops, core team dialogues and idea refinement workshops. All are underpinned and rooted in the company's strategic priorities as well as existing resources, strengths, and solutions. The solutions and ideas created in the process are aligned with overall corporate values, strategies, and competitive positions. The initial process can then be supported and followed by a scanning tool, aimed at providing understanding about organization's strengths, risks and capabilities related to the desired changes.

Becoming capable of continuous renewal

While corporate strategic aims and visions towards circularity might be formulated at the top; and to succeed need top management support, they need to be understood by all levels of the organization and by all roles and responsibilities. Circularity as a concept requires cooperation, creativity, and innovation at all levels and thus there is a dire need for the entire organization to share a common understanding of the challenge and the tasks.

Circular solutions are often very complex when compared against the old linear solutions. The number of internal and external stakeholders is often significantly higher, and new roles and behaviors are required from all participants. This means that complexity of solutions is often given. Companies need to embrace this complexity, but at the same time seek simplicity wherever possible. Previous

projects at Straquest have clearly shown that unnecessary organizational complexity often slows or even stops the development processes. Seemingly insignificant, unconnected, or irrelevant things can have a much bigger than precedented role in enabling or hindering a process. For example, work-flow processes might block the flow of information from product maintenance filtering back to product design. Likewise stringent job descriptions or tightly defined performance metrics may dwarf the possibility of employees to contribute to circular experiments. On the contrary, frequent cross-company multi-stakeholder design meetings might enable the creation of new knowledge and the sharing of information crucial to building circular models.

Straquest has developed an approach to uncover looming complexities that may act as roadblocks on the development and implementation journey. The process is supported by an electronic measurement tool that helps to uncover unforeseen challenges en route to circularity. Part of the process and tools appeal is to ensure that different organizational levels are aware and understand circularity in a similar fashion.

Many circular models require new capabilities and modified ways of working in various parts of the organization, as well as with customers and external collaborators. Improving organization's ability to change towards circularity is important. There is a need to identify and map development areas, become aware of looming complexities, and to design the operating model for circularity.

Digisti Live – tapahtumien uusi aikakausi -hanketta rahoittaa Uudenmaan liitto, EAKR 2014-2020, REACT-EU osana Euroopan unionin covid-19-pandemian johdosta toteuttamia toimia.