

CIRCULAR ECONOMY AND REUSE CENTRE IN KOŠICE, SLOVAKIA

CIRKULÁRNÍ EKONOMIKA A REUSE CENTRUM V KOŠICÍCH NA SLOVENSKU

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Abstract

Conscious handling with items we no longer need has become increasingly important for environmental sustainability, which led this study to explore the circular economy practices and potential for establishing a reuse centre in Košice, Slovakia. Using a combination of desk research, stakeholder mapping, interviews, focus group, and a survey, the research analyses community attitudes, and the practical challenges of implementing such a facility. The findings highlight strong local interest in reuse practices while also identifying key challenges. The study can be used as a base for creating a reuse centre that meets the specific needs of residents of Košice.

Keywords: circular economy, reuse centre, sustainability, reuse

Abstrakt

Uvědomělé zacházení s věcmi, které již nepotřebujeme, je pro environmentální udržitelnost stále důležitější, což vedlo tuto studii k prozkoumání principů cirkulární ekonomiky a potenciálu pro zřízení reuse centra (centra opětovného použití) v Košicích na Slovensku. Pomocí kombinace sekundárního výzkumu, mapování zainteresovaných stran, rozhovorů, fokusové skupiny a dotazníkového průzkumu analyzuje postoje komunity a praktické výzvy implementace takového zařízení. Zjištění zdůrazňují silný místní zájem o principy opětovného použití a zároveň identifikují klíčové výzvy. Studie slouží jako podklad pro vytvoření reuse centra, které splňuje specifické potřeby obyvatel Košic.

Klíčová slova: cirkulární ekonomika, centrum opětovného použití, reuse centrum, udržitelnost, znovupoužití

Introduction

The circular economy challenges traditional linear „take-make-dispose“ consumption models by emphasising resource efficiency, waste reduction, and the extension of product lifecycles. It operates on three interconnected levels: micro (individual products and companies), meso (eco-industrial parks), and macro (city, regional, or national initiatives) (Kirchherr *et al.*, 2017). This multi-level model aims to achieve sustainable development by creating environmental quality, economic prosperity,

and social equity, ensuring benefits for current and future generations (Bauwens *et al.*, 2020).

In this study, we focus on the circular economy on micro level – individuals and their contribution to the circular economy, but also within the macro level of a city, which can provide platforms for these individuals to contribute to the city's sustainability efforts. In many ways, circular offers are dependent on users, who grew more important in waste recovery (Selvfors *et al.*, 2019; Savini, 2023). Consumers have got responsibilities such as

correctly disposing of waste, separating products, and reducing waste.

To understand their behaviour, we can examine the way how they interact with items. Starting with how people get and get rid of products, we shift away from the focus on production and business models. Instead, this change in perspective places importance on product exchange among users, not just returning products for resource recovery in production processes (Selvfors *et al.*, 2019). This approach provides additional ways to minimize resource usage:

- Users can get pre-used products from other users instead of purchasing new ones.
- Users can prevent products from being discarded as waste by passing them on to others.
- Users can enhance product utilisation by transferring unused items to others.

Although these methods to extend product lifetimes and boost utilisation are not new, according to Selvfors *et al.* (2019), they have received limited attention because they are not inherently integrated into the current life cycle and business model narrative.

Globally, reuse centres have emerged as practical applications of circular economy principles. For the past few years, the number of people shopping second-hand goods has been rising (Fig. 1). Reuse centres (or reuse stores) are facilities or organisations that play a crucial role in promoting sustainability and reducing waste by extending the lifespan of various items. The notion of „reuse“ can be examined from two different perspectives (Zeleny, 2018). The first aims to keep the items in use for as long as possible by providing maintenance, repair, renovation, and by resale or donation. The second

perspective considers used items as feedstock for further use by recycling, shifting the paradigm of waste to focus on its potential value. When we talk about reuse centres, we focus on „reuse“ as in the first perspective, trying to keep the value of items before they get demolished to a material source. These centres serve as intermediaries between individuals or businesses looking to dispose of unwanted goods and those seeking second-hand or repurposed items.

There are many reuse centre models. For example, in the United Kingdom, the RenewHub processes donated items from local recycling centres, including furniture, toys, and electronics. These items are cleaned, mended, or upcycled before being sold. Another reuse centre „ReStore“, located in Warsaw, Poland, is a non-profit store committed to selling donated furniture and household items at attractive prices. ReStore is managed by the Habitat for Humanity Poland Foundation, and its profits contribute to the foundation's mission of tackling housing poverty and homelessness through renovation, construction works, and volunteer mobilisation. These examples demonstrate the diverse roles reuse centres can play in addressing waste challenges, reducing emissions, and helping community.

In Slovakia, reuse centres remain underdeveloped, with only a few facilities operating at a local scale. The Batekárka in Trnava, for instance, demonstrates the potential for such initiatives by providing spaces for item donation, upcycling workshops, swaps, and education on sustainable lifestyles. While Košice, Slovakia's second-largest city, hosts scattered initiatives such as second-hand shops, bazaars, and zero-waste events, these lack integration and accessibility. Residents often face logistical challenges

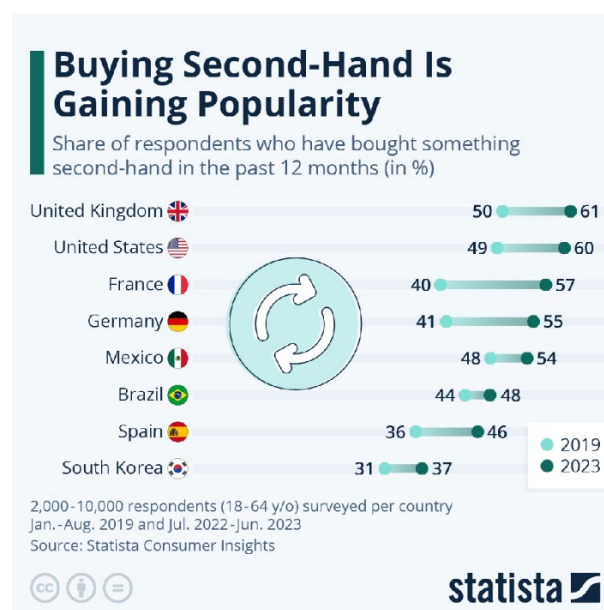


Fig. 1: Second-hand shopping is gaining popularity
Source: statista.com

in disposing of unwanted items sustainably or accessing reliable second-hand options. A dedicated reuse centre in Košice could bridge these gaps by centralising efforts, fostering community participation, and providing tailored services such as upcycling workshops, donation points, and repair facilities. Such a centre could not only enhance Košice's environmental sustainability but also contribute to its social and economic development, aligning with broader circular economy goals (Kirchherr *et al.*, 2017; Meadows *et al.*, 2013).

By examining the disposal habits of residents, their attitudes toward second-hand goods, and stakeholder perspectives, this study aims to provide actionable insights into the feasibility and design of a reuse centre in Košice. It highlights the potential for such a facility to serve as a model for integrating circular economy practices at the city level.

Methodology

The research used a mixed-methods approach to evaluate the feasibility and design of a reuse centre in Košice. By integrating qualitative and quantitative methods, this study provides a complex understanding of the city's current circular economy landscape and its potential for a centralised reuse facility.

The study aimed to address six key research questions:

- What is the current state of circular economy initiatives in Košice?
- What barriers do stakeholders face in implementing circular economy principles?
- How do residents perceive the importance of circular economy practices?
- What are residents' attitudes toward second-hand shopping?
- How do residents dispose of unnecessary household items?
- What services would residents expect from a reuse centre?

The first phase involved a review of existing reuse centres around Europe, followed by mapping circular economy initiatives in Košice. This included mapping stakeholders such as NGOs, businesses, and informal networks contributing to sustainability practices. Comparative analysis of successful reuse centres across Europe offered valuable benchmarks for operational models.

Stakeholder mapping identified key players likely to influence or support the proposed reuse centre, including local businesses, charities, and public institutions. Eight in-depth interviews with representatives from these entities explored their roles, challenges, and potential contributions to the reuse centre. Participants provided insights into logistical barriers, funding requirements, and community engagement strategies.

A focus group session with six residents provided qualitative insights into community attitudes and behaviours regarding reuse practices. The discussion highlighted participants' disposal habits, their motivations for shopping second-hand goods, and perceived barriers to adopting reuse practices.

The quantitative part of the study involved a questionnaire distributed via social media platforms, specifically targeting Facebook groups for Košice residents. The survey captured 519 responses, gathering data on circular economy awareness, current item disposal methods, preferences for second-hand goods and desired services in a reuse centre.

The combination of these methods ensured a broad understanding of both community and stakeholder perspectives, informing actionable recommendations for the reuse centre's design and implementation.

Results

The findings from all research stages, qualitative and quantitative, were summarised and grouped by research question.

The Current State of Circular Economy Initiatives

There are currently various initiatives focusing on promoting reuse: zero waste stores, charity shops, bazaars, second hands, antiques, and repairing and rental services. Zero waste stores in Košice are most often dedicated to the sale of food or drug store goods on tap. However, there are only around 10 stores in the whole city, distributed unevenly, which makes them hard to reach for the majority of citizens and makes their environmental impact smaller when we also take the issue of transport into account. Furthermore, some of them are zero-waste only partially and offer such products only as an add-on service.

Charity shops are well established, but shopping there is stigmatised and considered to be dedicated only to people in need. Second-hand clothing stores are common and can be found all around the city. There are also several stores reselling used furniture. However, there is no dedicated shop where people could bring or buy other second-hand things, such as household items. These findings support the assumption that there is a need for establishing a reuse centre in the city.

Barriers in Implementing Circular Economy

Although each interviewed stakeholder specialises in various aspects of environmental sustainability, such as upcycling, waste reduction, green urban planning, or local community development, they all share a common goal: offering environmental solutions, products, and services. Their dedication to making a positive impact on climate change is evident, they actively seek like-minded individuals

and organisations to collaboratively create a lasting and meaningful influence. However, there are barriers which they often face. It has become evident that some organisations defy traditional definitions of business models. One example is of an NGO, which currently relies heavily on the voluntary contributions of its members, who dedicate their free time to the organisation without expecting any monetary compensation: “We don't receive any wages. Lately, I have been receiving a purely symbolic amount for administrative and managerial work.”

Nevertheless, these organisations often view the development of a structured business model as a crucial milestone for the near future. Both NGOs and businesses are attracted by venturing into EU projects, but it presents a unique set of challenges. These projects require substantial investments, require considerable effort to navigate bureaucratic processes, and may lead to discouragement due to their demanding nature. Despite these obstacles, they represent opportunities worth pursuing for organisations seeking growth and development on a larger scale.

For NGOs that collaborate or attempt to build a relationship with the local municipality, the sustainability of their initiatives is dependent on the activities and priorities of the municipality. The uncertainty surrounding the city development plans and lack of transparency create a serious risk for them.

Another challenge relates to improving brand and build awareness. Brand recognition has been established as one of the goals that organisations want to focus on in the short-term. However, lack of financial and human resources might prevent them from implementing this vision.

The Perception of Circular Economy Practices

The focus group participants shared a range of perspectives on the circular economy. Some viewed it as a return to a more traditional, sustainable model of economics with minimal waste production, as they or their grandparents might remember from the past and it seemed natural back then. Others focused on the practical aspects of reuse and repair in daily life, often triggered by life milestones such as having kids or moving.

“For me, it means that I can do... for example, a very simple thing, sew a pair of sweatpants that I just had torn and that I don't throw them away, nor donate them, nor swap them, but just use them again.”

(Participant)

One of the positive findings is that also most of the respondents of the survey (80%) at least heard about the concept of circular economy (Fig. 2). Almost all of them (75%) also agree that the development of this concept is important for the sustainability of the city. Among circular activities they know, charity, second hands and swaps were mentioned most often. However, alarming 340 out

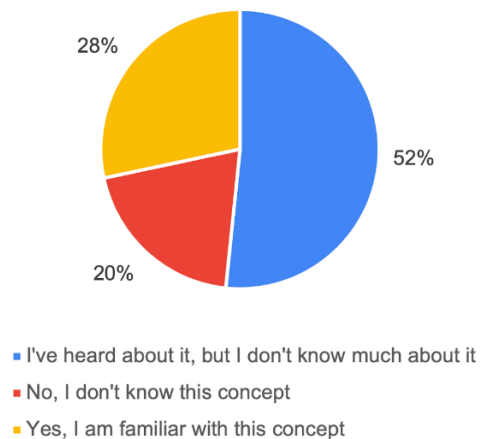


Fig. 2: Have you come across the term „circular economy“? (N = 519)

of 519 respondents did not think of any example of circular economy in Košice, which suggests that the awareness is not widespread yet.

According to the interviewed stakeholders, it is evident that consumers have become increasingly mindful of their purchasing choices, considering both the origin of products and services and their sustainability. Certain partners share a primary goal of not only attracting individuals but also educating them about adopting new sustainable practices and incorporating them into their daily lives. To encourage the adoption of sustainable lifestyles, a number of these partners are dedicated to establishing welcoming environments, places where individuals can gather, and feel comfortable engaging in sustainable activities. This strategy is aimed at rendering sustainable living more accessible and appealing to a wider audience.

Perception of circular economy is largely filtered through two key lenses: financial considerations and environmental impact. It is important to acknowledge that currently, most of the business owners focus on the financial impacts more: *“Everyone looks at it only through the money... how much it costs, how much it saves, what the return is. But no one, really no one, even when I met people at various exhibitions, no one really asks how we'll help our Earth.”* (Participant)

Attitudes Toward Second-hand Shopping

Almost 76% of respondents have bought something second-hand in the past year. For those who have not, the main reasons were the concerns about the condition or quality of things (stated by 50% of participants), hygiene reasons (41%) and lack of guarantee on the goods (25%). The other notable reasons were that it is not financially worth it (13%), they do not shop often and/or did not need anything in the past year (7%), or they do not like thrift stores (3%). Some people felt that there are no options for them to shop second-hand. The most common items bought second-hand include

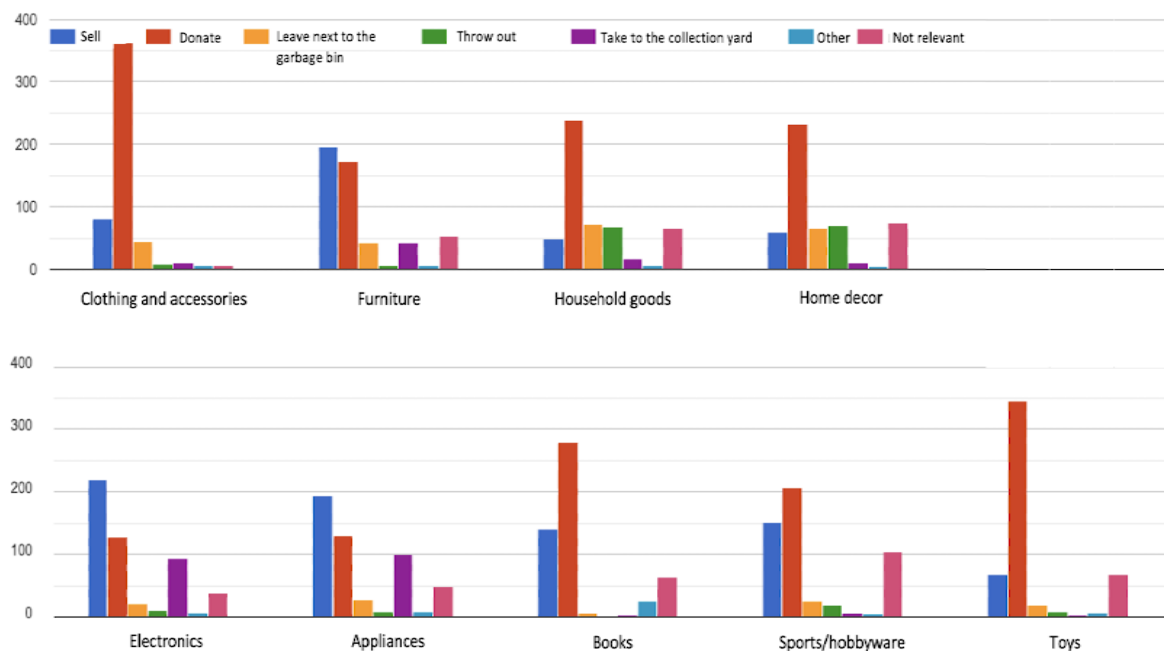


Fig. 3: How do you most often get rid of things that you no longer need, but are still usable? (N = 392)

clothing (90%), books (67%) and furniture (44%). People also thrifted cars, car parts, collectables, equipment for children and plants.

When it comes to the means of obtaining items, second-hands, online portals, social networks and friends and family were all marked by around two thirds of respondents. The only not-so-used means were furniture bazaars and one-off events like swaps or goods exchanges. Emerging trend of mobile applications for clothes resale, such as Vinted, was pointed out.

Disposal of Unnecessary Household Items

The majority of respondents (93%) have given something away for free in the past year. When asked about if their intention is usually to monetize things which they do not need, the distribution was almost exactly in thirds: one third disagreed with the statement, one third agreed and one third was in the middle. The average response was precisely in the middle of the scale: 3. This could mean that some people cannot evaluate their behaviour generally and we assume their answer might vary depending on the financial value of discarded item.

To sell or donate, people reach out to their family or friends first (80%), then use online portals and socials (60%), and half of the respondents donate to charity. One respondent mentioned that in their block of flats, they have a place to put unwanted things for neighbours to take. This is one of the most sustainable ways of how to get rid of items, as it is best to relocate them as close to the original owner. In this way, the process of redistribution does not create any additional carbon footprint, which is not true for most processes involving transport.

When asked specifically about product categories, we can see there are differences between how people dispose of their possessions (Fig. 3). While clothing is mostly donated, furniture, electronics and appliances are preferably sold. In other categories, donation is the most common way of disposing the items. We can conclude that people are more willing to donate cheaper items, while they try to monetize the more expensive ones.

Expectations from a Reuse Centre

In favour of reuse centre in Košice, almost all participants (93%) responded positively to the question of how willing they would be to using reuse centre services (Fig. 4). Most people would consider donating (92%) and 70% also shopping in the reuse

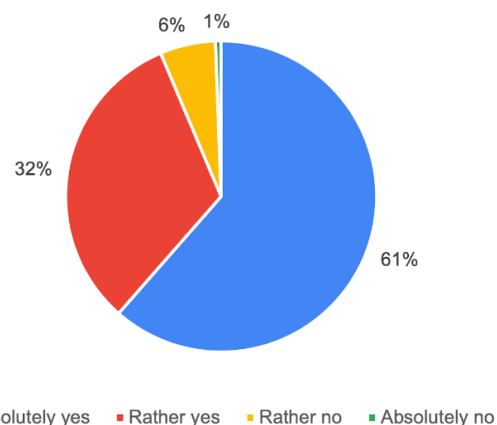


Fig. 4: Imagine a centre where you could donate and buy second-hand items at symbolic prices. The proceeds from the sale would help cover the costs of running the centre. Would you be interested in using such a facility? (N = 519)

centre. There would be a demand also for tool rental service (55%) and shared makerspace (27%).

Almost quarter of the respondents would attend events about sustainability, such as workshops and lectures.

As we discussed in the focus group discussion, apparel retail seems to bloom. We can assume, also based on this questionnaire, that clothing and accessories would be the most common items donated to the reuse centre (92%), followed by books (78%).

When it comes to the barriers which people have regarding using the services of a reuse centre, main concern seems to be about the possible location and problems with transport, with both donating and shopping. Some people specifically mentioned concerns about parking. There were also concerns about money fraud, which highlights the lack of trust towards municipality and its' institutions. Additionally, some people are reluctant towards the idea of reselling things which were donated and would rather donate them directly to those in need. From this survey, it seems that people are more willing to donate than to shop at the reuse centre, as they are afraid that they would find only low-quality goods there.

Within the last, non-mandatory open question, we received mostly positive supportive messages about the vision of a reuse centre, with only some containing concerns about how it could be implemented.

To sum up, the study has shown that there is a huge potential for opening a reuse centre in Košice, both for its reselling and educational purposes. Residents are somewhat familiar with the concept of circular economy, however, it is not sufficient and municipality and circular business providers should use all means to promote these ideas, to attract more customers/users.

Discussion

The findings raise several critical questions about the implementation and impact of a reuse centre in Košice. While the initiative aligns with circular economy principles, it operates within a socio-economic system that continues to prioritise consumption and growth. That means that if there was no overconsumption, there would be probably no need for reuse centres, as people would not need to dispose of usable items that often. Critics argue that true sustainability requires not just circularity but also a fundamental shift toward sufficiency and degrowth (Buch-Hansen *et al.*, 2023). The reuse centre could serve as a stepping stone in this transition, but its impact will depend on how effectively it integrates with wider sustainability strategies in Košice. In the meantime, the reuse centre must meet economic viability expectations of the current system. This can be a challenge, as reuse centres often rely on donations and funding by municipalities, which can fluctuate over time.

Another thing to consider is that emphasis on accessibility and convenience must be balanced with the environmental goals of the circular economy. For example, offering extensive transportation services for donated goods could increase carbon emissions, undermining the environmental benefits of the reuse centre. This calls for innovative solutions, such as partnerships with ecological logistics providers or decentralised donation hubs.

Cultural factors also play a significant role in shaping the success of reuse centres. While there is growing acceptance of second-hand goods, some stigmas may persist (Williams *et al.*, 2017). Overcoming these perceptions will require consistent efforts, educational campaigns, and the involvement of local influencers to promote reuse practices.

Conclusion

The findings of this study demonstrate the feasibility and necessity of establishing a reuse centre in Košice as a central pillar of the city's circular economy strategy. By providing place for still usable goods to be collected, refurbished, or repurposed, it has the potential to significantly reduce waste while promoting sustainable consumption.

The survey results reveal strong community support for circular economy practices, such as second-hand shopping, swapping, and donating for those in need. These services not only align with the principles of the circular economy but also address specific needs identified by stakeholders and residents of Košice. Additionally, stakeholder interviews highlighted the importance of partnerships and collaborative efforts in ensuring the success of such an initiative. By leveraging existing networks of NGOs, businesses, and municipal bodies, the reuse centre can benefit from shared resources and expertise, enhancing its operational sustainability. While research participants expressed strong support for the initiative, the challenge lays in achieving financial sustainability.

The study also highlights other critical challenges that must be addressed for the reuse centre to achieve long-term viability. These include overcoming cultural stigmas associated with second-hand goods and ensuring consistent quality of donated items. Public education campaigns and community outreach will be essential in reshaping perceptions and encouraging broader participation.

On a broader level, the reuse centre offers an opportunity to integrate environmental, social, and economic objectives. By serving as a hub for circular practices, it can promote a culture of sustainability in Košice, contributing to regional and national goals for waste reduction and resource efficiency.

Future research should focus on piloting the proposed operational model to test its effectiveness and scalability. It will also be important to monitor the reuse centre's social and environmental impact over time, ensuring it remains aligned with its goals. Finally, as Košice and other cities transition toward circular economies, deeper exploration of systemic shifts – such as integrating reuse practices with urban planning and economic policy – will be crucial.

In conclusion, the reuse centre represents a much-needed step in the city's journey toward sustainability and implementing circular practices that benefit both its residents and the environment.

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