

SUSTAINABLE CONSUMPTION HABITS OF MIGRANT COMMUNITIES IN TURKEY: OPPORTUNITIES AND CHALLENGES IN THE TRANSITION TO CIRCULAR ECONOMY

ATAKAN DURMAZ

Samsun University

Samsun, Turkey

atakan.durmaz@samsun.edu.tr

Abstract

The transformation of consumer behavior is critical in the transition to a circular economy. This study examines the sustainable consumption habits and circular economy practices of migrant communities living in four major cities of Turkey (Istanbul, Ankara, Izmir, and Gaziantep). The research analyzes survey data collected from migrant households (n=768) of different socio-economic profiles and in-depth interviews (n=16). Using a mixed-method approach, the study examines migrants' food waste prevention practices, textile reuse habits, second-hand product usage, participation in the sharing economy, and inter-household solidarity networks. The findings show that migrant communities' traditional saving practices and community-based sharing networks significantly align with circular economic objectives. They have developed sustainable practices in food sharing, household goods reuse, and textile waste utilization. The research results offer policy recommendations for local governments to support and expand the existing sustainable consumption practices of migrant communities. In this context, the study reveals the potential contribution of migrant communities to achieving Turkey's circular economy goals.

Keywords: sustainable consumption, migrant communities, circular economy, consumer behavior

JEL Classification: Q01, Q56

1. INTRODUCTION

In the process of transition to circular economy, the importance of consumer behaviour stands out as a critical element in terms of both environmental sustainability and economic efficiency. Today, resource scarcity and environmental issues have become factors that directly affect the decision-making processes of consumers. In this context, circular economy offers a solution with the goals of reducing waste generation and closing the material cycle by extending product life cycles (Ghisellini *et al.* 2016). However, consumers' adoption of

circular economy principles is not only limited to individual preferences but also plays a decisive role in changing the general attitudes and behaviours of society. However, existing research shows that consumers are not sufficiently informed about circular economy, and this lack of awareness is an obstacle to the adoption of sustainable consumption habits (Bucur, 2023; Rizos *et al.*, 2016). Therefore, the success of circular economic practices is directly related to raising awareness and increasing the participation of consumers.

The circular economy is a model that aims to use resources more sustainably and reduce waste. In this framework, consumer behaviour is at the heart of successful circular economy strategies. The shaping of consumer behaviour is directly related not only to the awareness of individuals, but also to social norms, cultural dynamics and economic conditions (Geissdoerfer *et al.*, 2017; Szilagyi *et al.*, 2022). Consumers' adoption of circular economy principles includes consuming less, increasing recycling, preferring second-hand products and supporting alternative models such as the sharing economy. In this context, a detailed analysis of the factors influencing individuals' purchasing decisions is critical for the effective integration of the circular economy.

In order to ensure the transition to a circular economy, it is necessary to increase the environmental awareness of consumers and adopt various sustainable consumption practices. As consumers become more informed about the life cycle, recycling opportunities and environmental impacts of products, they will be encouraged to make more informed purchasing decisions (Kutaula *et al.*, 2022). However, research shows that this situation is shaped not only by individual behaviour but also by the general trends and cultural norms of society. For example, in a study conducted in the European Union, it was revealed that policies that increase awareness on environmental sustainability issues positively affect consumer behaviour (Arias *et al.*, 2022).

According to research on the decisive role of consumer behaviour in the transition to a circular economy, the change in consumer trends is not only limited to knowledge and awareness; it is also closely related to the social and economic status of individuals (Camacho-Otero *et al.*, 2020). In particular, studies on migrant communities reveal that the consumption habits of these groups are shaped not only by individual preferences but also by social dynamics (Al-Husban & Adams, 2016). Therefore, it is critical for local governments and policies to develop strategies that take into account the needs of these communities in order to increase the level of participation of migrants in circular economic practices (Fry *et al.*, 2024). In addition, education and awareness-raising campaigns can have a positive impact on increasing consumers' knowledge about circular economy and enabling them to integrate this knowledge into their lives (Bucur, 2023; Mabasa *et al.*, 2021).

Turkey, as a country hosting one of the world's largest migrant populations, provides an ideal context for examining the intersection between migration and

sustainable consumption. With over 4 million registered migrants and refugees, Turkey has experienced significant demographic changes that have implications for consumption patterns and resource use (UNHCR, 2023). The country's strategic position between Europe, Asia, and the Middle East has made it a major destination and transit point for various migrant groups, creating diverse communities with distinct consumption behaviors and practices.

Due to its strategic location and historical background, Turkey is home to a large number of migrant communities with different geographical and cultural backgrounds. These migrant communities are highly heterogeneous in terms of economic and social dynamics and therefore have the potential to develop sustainable consumption practices in the context of the circular economy (Sousa *et al.*, 2021). As migrants interact with the societies they settle in, they aim to both preserve their own cultural values and adapt to local norms. This balance may affect their sustainable consumption habits and thus their contribution to the circular economy (Chao & Yu, 2023).

On the other hand, the challenges faced by migrants can have serious negative impacts on their sustainable consumption potential. Factors such as economic uncertainties, discrimination and social exclusion may prevent migrants from accessing sustainable consumption practices (Kirchherr *et al.*, 2018). However, the social networks of migrant communities can direct them towards more sustainable consumption methods by offering solidarity and cooperation opportunities. In particular, practices such as traditional exchange systems and community-based resource sharing can help these groups adopt circular economy principles (Papamichael *et al.*, 2023).

The influence of migrant communities on circular economic practices also plays an important role in the adaptation of local communities to these practices. Social integration processes and cultural exchange allow migrants to develop sustainable consumption habits and share these habits with local communities (Tortajada *et al.*, 2024). Past studies show that migrants can increase the sustainability awareness of local communities through social and cultural interactions (Rizos *et al.*, 2016).

This study analyses the sustainable consumption patterns and circular economy practices of migrant communities in four major Turkish cities, namely Istanbul, Ankara, Izmir and Gaziantep. Representing different geographical regions, economic profiles and migrant population characteristics, these cities provide a comprehensive view of migrant consumption patterns in various urban contexts. The research focuses on three key questions: current sustainable consumption practices of migrant communities and their alignment with circular economy principles, factors influencing the adoption of sustainable consumption behaviours among different migrant groups, and how existing sustainable practices can be supported and scaled up to contribute to Turkey's circular economy goals.

The main hypothesis of the study is that migrant communities have significant potential to contribute to circular economy goals through existing sustainable consumption practices. Economic constraints and strong social networks are predicted to drive migrants towards practices such as resource sharing, product reuse and waste minimization. It is also hypothesized that these practices vary among different migrant groups depending on factors such as country of origin, length of residence, socioeconomic status and level of integration.

This research contributes to the sustainable consumption literature by focussing on a population group with unique characteristics and practices, yet under-explored. The findings will inform policy development processes for both migration integration and environmental sustainability and demonstrate how inclusive approaches can achieve multiple policy objectives simultaneously. The study also offers valuable insights for local governments and civil society organisations seeking to engage diverse communities in circular economy initiatives.

2. LITERATURE REVIEW

The conceptual evolution of the circular economy (CE) represents one of the most significant paradigmatic shifts in contemporary sustainability discourse, fundamentally challenging the dominant linear economic model that has characterized industrial development since the 18th century. The theoretical foundations of the CE draw from multiple disciplinary traditions, including industrial ecology, ecological economics, and systems theory, creating a comprehensive framework for understanding resource flows and waste management in complex socio-economic systems (Ellen MacArthur Foundation, 2013; Geissdoerfer *et al.*, 2017). This interdisciplinary approach has enabled scholars to move beyond narrow technical solutions toward more holistic understandings of sustainability that encompass social, economic, and environmental dimensions.

Central to the CE paradigm is the concept of closing material loops through strategies such as reduce, reuse, recycle, and recover, often referred to as the "R-strategies" (Kirchherr *et al.*, 2017). However, recent scholarship has expanded this framework to include additional strategies such as refuse, rethink, and redesign, reflecting a more nuanced understanding of the behavioral and systemic changes required for circular transitions (Potting *et al.*, 2017). This evolution in thinking highlights the importance of consumption-side interventions, as opposed to the traditional focus on production-side efficiency improvements.

The circular economy is an innovative economic model that focuses on the efficient use of natural resources, reducing waste and closing the resource cycle (Demircioğlu & Ever, 2020). This model overcomes the limitations of the linear economy and offers alternative solutions in line with sustainable growth goals. In

the literature, it is emphasised that consumer behaviour and policies should be integrated harmoniously for the successful implementation of the circular economy (Özuyar & Gürsoy, 2021). The relationship between sustainable consumption and circular economy is explained by different theoretical frameworks. For example, environmental sustainability theories reveal that when individuals show sensitivity to environmental impacts, they are more likely to prefer more environmentally friendly products (Özdemir & Sunaoğlu, 2023). In addition, it is also stated that sustainable marketing practices are among the important factors that positively affect consumer behaviour; in this context, there is a positive relationship between environmental awareness and sustainable consumption (Küçükyörük & Kurtuldu, 2022). Therefore, educating and raising awareness of consumers plays a critical role in the dissemination of circular economy practices.

Recent research has identified several key factors that influence the adoption of sustainable consumption practices, including economic incentives, social norms, infrastructure availability, and information accessibility (Zink and Geyer, 2017). However, the literature also reveals significant challenges in translating circular economy principles into everyday consumption practices, particularly in diverse urban contexts where multiple cultural and socioeconomic groups coexist. This complexity is further compounded by the phenomenon of rebound effects, where efficiency gains are offset by increased consumption, highlighting the need for more sophisticated approaches to behavior change (Sorrell, 2007).

Within this broader theoretical landscape, the consumption behaviors of migrant communities offer a unique and largely unexplored perspective on sustainable consumption and circular economy practices. Migration studies have traditionally focused on issues of integration, labor market participation, and social cohesion, with consumption patterns receiving limited attention despite their significance for both individual well-being and broader sustainability outcomes (Castles *et al.*, 2014). This oversight is particularly notable given that migrants often develop innovative adaptive strategies in response to economic constraints, cultural displacement, and social exclusion.

Emerging research suggests that migrant communities frequently engage in practices that align with circular economy principles, albeit often out of necessity rather than environmental consciousness (Pemberton *et al.*, 2014; Sahakian *et al.*, 2020). These practices include extensive use of second-hand goods, participation in informal sharing networks, creative reuse and repair activities, and collective purchasing arrangements that reduce individual consumption needs. Such behaviors reflect what scholars have termed "practices of resilience," where resource constraints drive innovation and community-based solutions (Poulain, 2017).

The role of social capital in facilitating sustainable consumption among migrant communities has received particular attention in recent literature. Strong intra-community networks, often based on shared cultural backgrounds or

migration experiences, enable the circulation of goods, services, and information in ways that reduce resource consumption and waste generation (Putnam, 2000). These networks operate through both formal and informal mechanisms, including community organizations, religious institutions, and neighborhood-based initiatives that promote sharing and mutual support.

However, the literature also highlights significant barriers that limit the participation of migrant communities in formal circular economy initiatives. Language barriers, limited access to information about recycling and waste management systems, and exclusion from environmental education programs represent structural obstacles that prevent migrants from fully engaging with sustainability initiatives (Adger *et al.*, 2014). Additionally, precarious legal status and economic insecurity may prioritize immediate survival needs over longer-term environmental considerations, creating tensions between individual welfare and collective sustainability goals.

The intersection of migration and circular economy becomes particularly relevant in the Turkish context, where rapid urbanization, significant migrant populations, and ambitious sustainability targets create both opportunities and challenges for circular transitions. Turkey's position as a major destination and transit country for migrants from the Middle East, Africa, and Central Asia has resulted in highly diverse urban populations with distinct consumption patterns and resource needs (UNHCR, 2023). This demographic diversity presents unique opportunities for learning from different cultural approaches to resource use and waste management.

Turkey's policy response to circular economy challenges has evolved significantly in recent years, driven by both domestic environmental priorities and alignment with European Union standards and regulations (Ministry of Environment, Urbanization and Climate Change, 2021). The National Circular Economy Action Plan (2021-2023) represents the most comprehensive policy framework to date, outlining specific targets for waste reduction, resource efficiency, and the development of circular business models across key sectors including textiles, electronics, and food (Republic of Turkey, 2021). However, academic analysis of these policies reveals several implementation challenges, including fragmented governance structures, limited coordination between national and local authorities, and insufficient attention to social dimensions of circular transitions (Kilkis, 2018).

Recent studies have emphasized the importance of inclusive approaches to circular economy policy that recognize the diversity of urban populations and their varying capacities to participate in sustainability initiatives (OECD, 2022). This perspective is particularly relevant in Turkish cities, where migrant communities may possess valuable knowledge and practices related to resource conservation and waste reduction, yet remain largely excluded from formal policy processes. The failure to engage these communities represents a missed opportunity for

leveraging existing sustainable practices and scaling up community-based solutions.

Furthermore, the literature reveals a significant gap in understanding how cultural diversity and migration dynamics influence the effectiveness of circular economy interventions. Most existing research on circular economy implementation focuses on relatively homogeneous populations in developed countries, with limited attention to the complexities introduced by cultural diversity, language barriers, and varying levels of formal integration (Yıldız-Geyhan & Yıldız, 2022). This gap is particularly problematic in contexts like Turkey, where successful circular economy transitions will require the active participation of diverse communities with different cultural backgrounds, economic circumstances, and social networks.

The present study addresses these gaps by examining the sustainable consumption practices of migrant communities in Turkish cities, with particular attention to how these practices align with or diverge from formal circular economy objectives. By focusing on the intersection of migration and circular economy, this research contributes to both theoretical understanding and practical policy development in several important ways. First, it provides empirical evidence on the actual consumption behaviors of an understudied population group, moving beyond assumptions about migrant practices to document real patterns of resource use and waste management. Second, it examines how cultural backgrounds, social networks, and economic circumstances influence the adoption and maintenance of sustainable consumption practices. Third, it explores the potential for scaling up community-based sustainable practices and integrating them into broader circular economy strategies.

This research approach is particularly timely given growing recognition of the need for more inclusive and participatory approaches to sustainability governance. Recent scholarship has emphasized that successful circular economy transitions require not only technological innovation and policy reform, but also social innovation and community engagement (Schröder *et al.*, 2019). By examining the practices and perspectives of migrant communities, this study contributes to a more comprehensive understanding of how diverse urban populations can contribute to circular economy objectives while addressing their own needs and priorities.

3. METHODOLOGY

This study adopts a mixed-methods research design to comprehensively investigate the sustainable consumption habits of migrant communities in Turkey. The integration of quantitative and qualitative approaches enables a nuanced understanding of both the prevalence and underlying motivations of sustainable consumption behaviors (Creswell & Plano Clark, 2017). The following section

details the rationale for the mixed-methods approach, the sampling strategy, data collection procedures, and the analytical techniques employed.

The mixed-methods approach is increasingly recognized as a robust strategy for social science research, particularly in studies addressing complex phenomena that require both breadth and depth of analysis (Tashakkori & Teddlie, 2010). By combining quantitative survey data with qualitative in-depth interviews, this study leverages the strengths of both methodologies: the generalizability and statistical power of large-scale surveys, and the contextual richness and explanatory depth of qualitative inquiry (Bryman, 2016). The integration of these methods follows a convergent parallel design, wherein quantitative and qualitative data are collected and analyzed independently before being merged for interpretation (Creswell & Plano Clark, 2017).

Sampling was conducted in four major Turkish cities – Istanbul, Ankara, Izmir, and Gaziantep – selected for their significant migrant populations and diverse socio-economic profiles (UNHCR, 2023). The quantitative component comprises a structured survey administered to 768 migrant households, employing stratified random sampling to ensure representation across key demographic variables such as age, gender, country of origin, and length of residence. The sample size was determined using the formula for estimating proportions with a 95% confidence level and a 5% margin of error (Israel, 1992).

Sample size calculation formula:

$$n = [N \times Z^2 \times p \times (1-p)] / [e^2 \times (N-1) + Z^2 \times p \times (1-p)]$$

Where:

n = sample size

N = population size

Z = Z-score (1.96 for 95% confidence)

p = estimated proportion (0.5 used for maximum variability)

e = margin of error (0.05)

The stratified sampling approach ensures adequate representation across different migrant groups, with quotas established for major countries of origin including Syria, Afghanistan, Iraq, and Iran, as well as migrants from Sub-Saharan Africa and Central Asia. This stratification is crucial given the heterogeneity of migrant populations and the potential variation in consumption patterns across different cultural and socioeconomic backgrounds (Castles *et al.*, 2014).

For the qualitative component, 16 in-depth interviews were conducted with migrants from diverse backgrounds, selected through purposive sampling to capture a range of experiences and perspectives. The selection criteria included variation in age (18-65 years), gender, country of origin, length of residence in Turkey (ranging from 6 months to 10 years), and socioeconomic status. Interviewees were identified via community organizations, local NGOs, and

snowball sampling techniques, ensuring the inclusion of both recent arrivals and long-term residents. The interviews explored themes such as resource use patterns, waste management practices, participation in sharing economies, social networks facilitating sustainable behaviors, and perceived barriers to sustainable consumption. Data collection for the survey was carried out between March and June 2024, using a structured questionnaire developed based on existing validated instruments in the literature (Mont *et al.*, 2020; UNEP, 2015). The questionnaire development process involved extensive pilot testing with 50 respondents to ensure cultural appropriateness and linguistic clarity. The final instrument included five main sections: (1) demographic characteristics and migration history, (2) household consumption patterns and resource use, (3) participation in circular economy activities such as repair, reuse, and sharing, (4) environmental awareness and attitudes, and (5) perceived barriers and facilitators to sustainable consumption practices.

Surveys were administered in Turkish, Arabic, and English to accommodate linguistic diversity within migrant communities. Professional translators were employed to ensure accuracy and cultural sensitivity in translation. Data collection was conducted by trained enumerators who were familiar with migrant communities and sensitive to potential vulnerabilities. Face-to-face interviews were conducted in community centers, NGO offices, and other safe spaces to ensure participant comfort and confidentiality. In-depth interviews were conducted in the participants' preferred language, with professional interpreters engaged as needed. Interview duration ranged from 45 to 90 minutes, and all sessions were audio-recorded with participant consent. The interview guide was semi-structured, allowing for flexibility while ensuring coverage of key themes. Questions explored participants' consumption histories, changes in practices since migration, community networks and support systems, and aspirations for future consumption patterns.

Table 1. Summary of Key Variables and Statistical Analysis Techniques

Variable Category	Variable Name	Type	Description	Statistical Technique
Demographics	Age	Continuous	Respondent age in years (18-65)	Descriptive statistics, Regression analysis
Demographics	Gender	Categorical	Male/Female/Other	Cross-tabulation, Chi-square test
Demographics	Country of Origin	Categorical	Country of birth (8 categories)	Frequency analysis, ANOVA

Variable Category	Variable Name	Type	Description	Statistical Technique
Migration	Length of Residence	Continuous	Years residing in Turkey	Correlation, Regression analysis
Migration	Legal Status	Categorical	Refugee/Asylum seeker/Other	Cross-tabulation analysis
Consumption	Sustainable Consumption Index	Composite	Weighted index (0-100 scale)	Factor analysis, Regression
Circular Economy	Repair Frequency	Ordinal	5-point Likert scale	Mann-Whitney U test
Circular Economy	Sharing Participation	Binary	Yes/No participation	Logistic regression
Barriers	Economic Constraints	Ordinal	Perceived financial barriers	Ordinal regression
Barriers	Information Access	Ordinal	Access to sustainability info	Correlation analysis
Social	Community Networks	Continuous	Social capital index	Path analysis, SEM

Quantitative data analysis was conducted using SPSS version 28.0 and R statistical software. The analytical approach included both descriptive and inferential statistics. Descriptive analysis involved frequency distributions, measures of central tendency, and variability assessments for all variables. Cross-tabulations were performed to examine relationships between demographic characteristics and sustainable consumption behaviors. The Sustainable Consumption Index was constructed using principal component analysis (PCA) to identify underlying dimensions of sustainable behavior, following the methodology established by Jackson (2005) and refined by Mont *et al.* (2020). Inferential statistical techniques included chi-square tests for categorical variables, independent t-tests and ANOVA for continuous variables, and correlation analysis to examine relationships between variables. Multiple regression analysis was employed to identify predictors of sustainable consumption behaviors, with the Sustainable Consumption Index as the dependent variable. Logistic regression was used to model binary outcomes such as participation in circular economy activities. The following regression model was specified:

$$\text{Sustainable Consumption Index} = \beta_0 + \beta_1(\text{Age}) + \beta_2(\text{Gender}) + \beta_3(\text{Length of Residence}) + \beta_4(\text{Education}) + \beta_5(\text{Income}) + \beta_6(\text{Country of Origin}) + \beta_7(\text{Legal Status}) + \beta_8(\text{Community Networks}) + \varepsilon$$

Where β_0 represents the intercept, β_1 - β_8 are regression coefficients for predictor variables, and ϵ is the error term.

Model assumptions were tested including normality of residuals (Shapiro-Wilk test), homoscedasticity (Breusch-Pagan test), and multicollinearity (Variance Inflation Factor). Missing data analysis was conducted, and multiple imputations were employed where appropriate, following guidelines by Little and Rubin (2019). Qualitative data from interviews were transcribed verbatim and analyzed using thematic analysis, following the six-phase approach outlined by Braun and Clarke (2006). This systematic approach involved: (1) familiarization with the data through repeated reading and initial note-taking, (2) generation of initial codes through systematic coding of interesting features, (3) searching for themes by collating codes into potential themes, (4) reviewing themes through checking if themes work in relation to coded extracts and the entire dataset, (5) defining and naming themes by ongoing analysis to refine themes and generate clear definitions, and (6) producing the final report by selecting compelling extract examples and relating analysis back to research questions.

NVivo 12 software was used to facilitate coding and data management. Inter-coder reliability was established through independent coding of 25% of transcripts by two researchers, achieving a Cohen's kappa coefficient of 0.82, indicating substantial agreement (Landis & Koch, 1977). The integration of quantitative and qualitative findings was achieved through triangulation, enabling the identification of convergent and divergent patterns across data sources (Fetters *et al.*, 2013). A joint display matrix was created to systematically compare quantitative results with qualitative themes, facilitating meta-inferences about sustainable consumption patterns among migrant communities. Validity and reliability measures were implemented throughout the study. For quantitative data, internal consistency was assessed using Cronbach's alpha coefficients for multi-item scales, with all scales achieving $\alpha > 0.70$. Construct validity was evaluated through confirmatory factor analysis. For qualitative data, credibility was enhanced through member checking with selected participants, and transferability was addressed through thick description and purposive sampling across diverse migrant groups.

The mixed-methods approach adopted in this study provides a comprehensive framework for understanding the sustainable consumption practices of migrant communities in Turkey. By combining robust quantitative analysis with rich qualitative insights, the research offers both generalizable findings and in-depth contextual understanding. This methodological rigor contributes to the development of evidence-based, inclusive, and culturally sensitive circular economy policies that can effectively engage diverse migrant populations in sustainable consumption practices.

4. FINDINGS

This section presents the findings from the mixed-methods investigation of sustainable consumption practices among migrant communities in Turkey. The analysis reveals significant patterns in food waste prevention, textile reuse, second-hand product consumption, sharing economy participation, and inter-household solidarity networks. The findings are organized thematically, integrating quantitative survey results ($n=768$) with qualitative insights from in-depth interviews ($n=16$) to provide a comprehensive understanding of sustainable consumption behaviors within this population. The demographic profile of survey respondents reflects the diversity of Turkey's migrant population. Participants ranged in age from 18 to 65 years ($M=34.2$, $SD=11.8$), with 52.3% identifying as female and 47.7% as male. The sample included migrants from Syria (41.2%), Afghanistan (23.1%), Iraq (15.6%), Iran (8.9%), Somalia (4.7%), and other countries (6.5%). Length of residence in Turkey varied from 6 months to 12 years ($M=4.3$ years, $SD=2.9$), providing insights across different stages of settlement and integration.

A substantial proportion of migrant households reported active engagement in food waste prevention strategies. Quantitative survey data indicate that 68.4% of respondents regularly plan meals and shopping lists to minimize excess purchases, while 54.7% report frequent use of leftovers in subsequent meals. These findings align with global trends emphasizing the importance of household-level interventions in reducing food waste (FAO, 2019; Stenmarck *et al.*, 2016). Notably, 39.2% of households reported sharing surplus food with neighbors or community members, reflecting the role of informal solidarity networks in food redistribution (Papargyropoulou *et al.*, 2014). Qualitative interviews revealed that food waste prevention is often motivated by both economic necessity and cultural values emphasizing frugality and resourcefulness. Several participants described traditional practices such as repurposing stale bread into new dishes or organizing communal meals to utilize perishable ingredients. One interviewee from Syria stated: 'We never throw away bread; we make fattoush or feed animals. Sharing food is part of our culture.' The following table 2 summarizes the prevalence of key food waste prevention practices among survey respondents:

Table 2. Food Waste Prevention Practices

Practice	Percent of Households (%)
Meal planning and shopping lists	68.4
Use of leftovers	54.7
Sharing surplus food	39.2
Composting organic waste	12.5
Repurposing stale bread	47.8

Textile reuse practices among migrant households demonstrate significant engagement with circular economy principles, driven by both economic constraints and cultural traditions of resourcefulness. Survey results indicate that 72.1% of respondents regularly repair clothing items rather than discarding them, while 58.3% repurpose old textiles for household uses such as cleaning cloths or craft projects. These findings are consistent with research highlighting the potential for textile reuse in reducing environmental impact and extending product lifecycles (Ellen MacArthur Foundation, 2017; Niinimäki *et al.*, 2020). The practice of clothing alteration and modification is particularly prevalent, with 45.6% of households reporting regular engagement in resizing, mending, or updating garments. This behavior reflects both practical necessity and creative adaptation to changing circumstances. Qualitative interviews revealed that many participants possess traditional sewing and repair skills that facilitate textile reuse. One participant from Afghanistan noted: 'My mother taught me to sew when I was young. Here in Turkey, I fix our clothes and also help neighbors. It saves money and nothing is wasted.'

Gender differences emerged in textile reuse practices, with female respondents significantly more likely to engage in repair and repurposing activities ($\chi^2 = 23.47$, $p < 0.001$). This pattern aligns with traditional gender roles in textile work, though male participants also reported engagement in certain activities such as shoe repair and bag modification (Gwilt, 2014; Fletcher, 2014). Community networks play a crucial role in facilitating textile reuse through informal exchange systems. Approximately 34.7% of households participate in clothing swaps or donations within their communities, creating circular flows of textile goods that extend product lifecycles while meeting diverse household needs. The following table 3. presents the distribution of textile reuse practices:

Table 3. Textile Reuse Practices by Gender

Textile Reuse Practice	Percent of Households (%)	Gender Difference (M/F)
Clothing repair and mending	72.1	58.3 / 84.7
Repurposing for household use	58.3	51.2 / 64.8
Clothing alteration/modification	45.6	32.1 / 57.9
Community clothing exchange	34.7	29.4 / 39.2
Textile crafts and upcycling	28.9	18.7 / 37.8
Professional repair services	15.2	22.6 / 8.9

The utilization of second-hand products represents a significant component of sustainable consumption practices among migrant households in Turkey. Survey data reveal that 81.7% of respondents have purchased second-hand items

within the past year, with furniture (67.3%), clothing (59.8%), and household appliances (42.1%) being the most commonly acquired categories. These findings reflect both economic motivations and environmental consciousness, consistent with research on second-hand consumption patterns in diverse populations (Guiot & Roux, 2010; Cervellon *et al.*, 2012). The frequency of second-hand purchases varies significantly across product categories and demographic characteristics. Analysis reveals that length of residence in Turkey is positively correlated with second-hand consumption frequency ($r = 0.34$, $p < 0.001$), suggesting that familiarity with local markets and networks facilitates access to second-hand goods. Additionally, households with lower reported incomes demonstrate higher engagement with second-hand markets across all product categories, indicating the role of economic necessity in driving circular consumption behaviors (Bardhi & Arnould, 2005).

Qualitative interviews illuminate the complex motivations underlying second-hand consumption. Beyond economic considerations, participants frequently cited environmental awareness, quality preferences for older items, and the social aspects of second-hand shopping. One participant from Iraq explained: 'In the second-hand market, you find good quality things that last longer than new cheap items. Also, it's better for the environment, and you meet people from your community.' Trust and quality assessment emerged as critical factors influencing second-hand purchasing decisions. Participants described developing expertise in evaluating product condition and establishing relationships with trusted vendors. The role of community networks in facilitating second-hand transactions is particularly notable, with 48.6% of respondents reporting purchases through community connections rather than formal retail channels. The following analysis presented in table 4, presents second-hand consumption patterns across different product categories and demographic groups:

Table 4. Second-hand Product Purchase Patterns

Product Category	Purchase Rate (%)	Frequency (Monthly)	Primary Motivation	Trust Level (1-5)
Furniture	67.3	2.1	Economic necessity	4.2
Clothing	59.8	3.4	Economic + Quality	3.8
Household appliances	42.1	1.2	Economic necessity	3.9
Electronics	38.7	0.8	Economic necessity	3.5
Books and media	35.2	2.8	Interest + Economic	4.1
Children's items	31.9	1.9	Economic + Practical	4.0
Sports equipment	18.4	0.6	Interest + Economic	3.7

Participation in the sharing economy is a growing trend among migrant households, reflecting both adaptation to new economic realities and the leveraging of community-based resources. Survey results show that 44.9% of respondents have engaged in at least one form of sharing economy activity in the past year, including ride-sharing, tool or equipment sharing, and collaborative childcare arrangements. This rate is notably higher than the national average for the general population in Turkey, as reported by the Turkish Statistical Institute (TUIK, 2023). The most common sharing economy activities include ride-sharing (27.6%), tool/equipment sharing (21.3%), and collaborative childcare (14.8%). Engagement in digital platforms remains limited (9.2%), with most sharing activities organized through informal community networks rather than commercial apps. This finding is consistent with research indicating that trust and social capital are key enablers of sharing economy participation, especially among migrant and low-income groups (Schor, 2016; Frenken and Schor, 2017).

Qualitative interviews highlight the importance of trust, reciprocity, and cultural familiarity in facilitating sharing practices. Many participants described informal arrangements for sharing household items, transportation, and childcare with neighbors or extended family. One participant from Somalia explained: 'We share what we have with each other. If someone needs a car or a tool, we ask in our WhatsApp group. It saves money and builds trust.' Barriers to broader participation include limited access to digital platforms, language barriers, and concerns about reliability and safety. However, the strong presence of informal sharing networks suggests significant potential for expanding sharing economy models tailored to migrant communities. The following table 5. summarizes the prevalence of sharing economy activities:

Table 5. Sharing Economy Participation

Sharing Activity	Participation Rate (%)
Ride-sharing	27.6
Tool/equipment sharing	21.3
Collaborative childcare	14.8
Shared housing	11.5
Food sharing (outside family)	10.9
Digital platform use	9.2

Solidarity networks among migrant households play a crucial role in supporting sustainable consumption and resilience. Survey data indicate that 62.8% of respondents regularly participate in mutual aid activities, such as sharing food, childcare, or financial resources with other households. These networks are particularly active during periods of economic hardship or crisis, echoing findings from studies on migrant social capital and informal support systems (Putnam, 2000; Portes and Sensenbrenner, 1993). The most common forms of solidarity include food sharing (48.9%), childcare support (32.4%), and informal lending or

financial assistance (27.6%). Qualitative interviews reveal that these practices are deeply embedded in cultural traditions and are often organized through kinship, friendship, or neighborhood ties. One participant from Iran described: 'When someone in our community faces difficulty, everyone helps. We share what we have, whether it is food, money, or time.' The strength and reach of solidarity networks vary by country of origin, length of residence, and household size. Households with longer residence in Turkey and larger family networks report higher levels of participation in mutual aid. The following table 6. summarizes the prevalence of solidarity activities:

Table 6. Inter-household Solidarity Networks

Solidarity Activity	Participation Rate (%)
Food sharing	48.9
Childcare support	32.4
Financial assistance	27.6
Housing support	19.7
Job search assistance	16.3
Emotional support	54.2

The findings reveal a complex landscape of sustainable consumption practices among migrant communities in Turkey, characterized by high levels of engagement across multiple dimensions of circular economy behavior. The integration of quantitative and qualitative data demonstrates that sustainable consumption among this population is driven by a combination of economic necessity, cultural values, and adaptive strategies for navigating new social and economic environments. Several key patterns emerge from the analysis. First, economic constraints serve as a primary driver of sustainable consumption behaviors, with households demonstrating remarkable resourcefulness in extending product lifecycles and minimizing waste. However, these practices are not merely survival strategies but are deeply embedded in cultural traditions and community values that emphasize frugality, sharing, and mutual support (Appadurai, 2013; Vertovec, 2007).

Second, gender differences are evident across multiple domains, with women playing particularly prominent roles in textile reuse, food waste prevention, and household resource management. This pattern reflects both traditional gender roles and the practical realities of household management in resource-constrained environments (Mohanty, 2003; Kabeer, 2005). Third, community networks emerge as critical infrastructure for sustainable consumption, facilitating sharing, exchange, and mutual support activities that extend beyond individual household boundaries. These networks demonstrate the potential for community-based approaches to circular economy implementation that leverage existing social capital and cultural practices (Coleman, 1988; Bourdieu, 1986).

The findings have important implications for policy development and circular economy initiatives targeting migrant populations. Rather than imposing external frameworks, effective interventions should build upon existing practices and community structures, recognizing the sophisticated informal systems already in place. This approach aligns with participatory development principles and community-based resource management strategies (Chambers, 1997; Ostrom, 2009). The limitations of the study include the cross-sectional design, which limits causal inferences, and the focus on four major cities, which may not represent rural or smaller urban contexts. Future research should explore longitudinal patterns of sustainable consumption adaptation and examine the role of policy interventions in supporting or constraining these practices.

5. CONCLUSION AND RECOMMENDATIONS

This study has provided a comprehensive examination of the sustainable consumption practices among migrant communities in Turkey, with a particular focus on the alignment of traditional saving behaviors and the transformative potential of community-based sharing networks for advancing the country's circular economy goals. The findings underscore the critical role of social capital, cultural heritage, and adaptive community structures in fostering sustainable consumption and resource management, offering valuable insights for local governments and national policy frameworks. The evidence demonstrates that traditional saving practices – such as food preservation, textile repair, and the reuse of household goods – are not only strategies for economic resilience but also align closely with the principles of the circular economy (Geissdoerfer *et al.*, 2017). These practices, deeply embedded in the cultural fabric of migrant communities, contribute to waste reduction, resource efficiency, and the extension of product lifecycles, echoing the priorities outlined in the European Union's Circular Economy Action Plan (European Commission, 2020).

Community-based sharing networks emerge as a powerful mechanism for scaling sustainable behaviors beyond individual households. The study's quantitative analysis reveals that strong community ties significantly increase both sustainable consumption and participation in circular economy activities. This finding is consistent with Ostrom's (1990) theory of collective action, which highlights the effectiveness of local institutions in managing shared resources. In the Turkish context, these networks facilitate the sharing of tools, childcare, and financial resources, reducing consumption pressure and enhancing social cohesion (Schor, 2016). However, the research also identifies key barriers to the broader integration of these practices into formal circular economy initiatives. Legal status, language barriers, and digital access remain significant challenges for many migrant households, limiting their participation in formal sharing platforms and policy programs (Portes & Rumbaut, 2014; van Dijk, 2020). Addressing these

barriers is essential for realizing the full potential of community-based sustainability strategies.

For local governments, the findings suggest several actionable policy recommendations:

- Recognize and support existing community-based sharing networks as vital components of local sustainability strategies. This can be achieved through micro-grants, technical support, and the creation of community resource centers (Ostrom, 2009).

- Facilitate the integration of traditional knowledge and skills into municipal waste management, repair, and reuse programs, leveraging the expertise of migrant communities to enhance circular economy outcomes (Berkes, 2012).

- Address structural barriers by providing language support, legal assistance, and digital literacy training to ensure equitable access to formal circular economy initiatives (European Commission, 2020).

- Foster partnerships between local authorities, NGOs, and community organizations to co-design inclusive sustainability programs that reflect the needs and strengths of diverse populations (McCauley & Heffron, 2018).

At the national level, Turkey's circular economy ambitions can be significantly advanced by harnessing the adaptive capacity and social capital of migrant communities. The integration of informal, community-driven practices into national policy frameworks can accelerate progress toward the waste reduction, resource efficiency, and social inclusion targets outlined in Turkey's National Circular Economy Action Plan (Republic of Turkey Ministry of Environment, Urbanization and Climate Change, 2022). Comparative analysis with international literature reveals that Turkey's experience mirrors global trends, where community-based and culturally embedded practices often outperform top-down, technology-driven interventions in terms of participation and sustainability outcomes (Ghisellini *et al.*, 2016; Jackson, 2006). By prioritizing the empowerment of local communities and the removal of structural barriers, Turkey can position itself as a leader in inclusive and socially just circular economy transitions.

In conclusion, the study highlights the untapped potential of migrant communities as agents of sustainability and innovation. Local governments and national policymakers are encouraged to move beyond deficit-based approaches and instead recognize the value of cultural diversity, social capital, and hybrid knowledge systems in achieving circular economy goals. By fostering enabling environments for community-based action, Turkey can realize a more resilient, inclusive, and sustainable future.

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