

Harvesting Hope Through the Circularity Promotion in Children's Food Marketing

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Abstract

The production and consumption imbalance has compelled households to carefully plan their purchases and manage waste within the family unit. As interest in the circular economy has grown, both globally and within individual countries, the focus of research has expanded from examining government and corporate strategies to addressing issues related to scarcity, abundance, sustainable production, and waste management. This article analyzes the involvement of children in circular economy principles within their households and broader societal context, based on a survey of 302 respondents aged 6–16 from Ukraine. The survey categorizes respondents into three groups: enthusiastic, cautious, and unengaged consumers. Results reveal that only 54.3% of youth actively promote sustainable consumption principles. There is potential to increase the proportion of ‘circular-minded’ consumers through promotional and educational initiatives targeting children (15.56%) who are aware of the benefits of circularity but lack sufficient information. 29.1% of youth either disregard recycling principles in food consumption or are disengaged due to limited knowledge and experience, which they might get within a family.

References:

1. Sesini G, Castiglioni C, Lozza E (2020) New trends and patterns in sustainable consumption: a systematic review and research agenda. *Sustainability* 12(15):5935. <https://doi.org/10.3390/su12155935>
2. Ternyik SI (2024) Sustainable marketing strategies. *SSRN Electron J.* <https://doi.org/10.2139/ssrn.4736675>
3. Dutta K (2012) Green marketing—a marketing practice with e-marketing. *SSRN Electron J.* <https://doi.org/10.2139/ssrn.2492663>
4. Närvänen E, Mesiranta N, Mattila M, Heikkinen A (2019) Introduction: a framework for managing food waste. *Food Waste Manag* 1–24. https://doi.org/10.1007/978-3-030-20561-4_1
5. Schanes K, Dobernick K, Gözet B (2018) Food waste matters—a systematic review of household food waste practices and their policy implications. *J Clean Prod* 182:978–991. <https://doi.org/10.1016/j.jclepro.2018.02.030>

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6. Watson M, Browne A, Evans D, Foden M, Hoolohan C, Sharp L (2020) Challenges and opportunities for re-framing resource use policy with practice theories: the change points approach. *Glob Environ Chang* 62:102072. <https://doi.org/10.1016/j.gloenvcha.2020.102072>
7. Fedele M, Formisano V (2023) Waste from criticality to resource through an innovative circular business model: a case study in the manufacturing industry. *J Clean Prod* 407:137143. <https://doi.org/10.1016/j.jclepro.2023.137143>
8. Priss O, Glowacki S (2024) Strategies for reducing postharvest losses of vegetables through integral assessment of antioxidant status. *Food Technol Progressive Solutions* 4–27. <https://doi.org/10.21303/978-9916-9850-4-5.ch1>
9. Lopes de Sousa Jabbour AB, Frascareli FC, Santibanez Gonzalez ED, Chiappetta Jabbour CJ (2021) Are food supply chains taking advantage of the circular economy? A research agenda on tackling food waste based on Industry 4.0 technologies. *Prod Plann Control* 34(10):967–983. <https://doi.org/10.1080/09537287.2021.1980903>
10. Lopes de Sousa Jabbour AB, Chiappetta Jabbour CJ, Choi T-M, Latan H (2022) ‘Better together’: evidence on the joint adoption of circular economy and Industry 4.0 technologies. *Int J Prod Econ* 252:108581. <https://doi.org/10.1016/j.ijpe.2022.108581>
11. Kulish T, Sokil Y, Legeza D, Sokil O, Budnikevich I, Diyora B (2024) Digitalization of consumers’ behavior model in the dairy market. In: *Lecture notes on data engineering and communications technologies*, pp 187–205. https://doi.org/10.1007/978-3-031-54012-7_8
12. Obikhod S, Legeza D, Nestor V, Harvat O, Akhtoian A (2023) Digitization of business processes and the impact on the interaction of business entities. *Econ Aff* 68(1s). <https://doi.org/10.46852/0424-2513.1s.2023.14>
13. Lehtokunnas T, Mattila M, Närvänen E, Mesiranta N (2020) Towards a circular economy in food consumption: food waste reduction practices as ethical work. *J Consum Cult* 22(1):227–245. <https://doi.org/10.1177/1469540520926252>
14. Lehtokunnas T (2021) The circular economy futures in the making: transformativity and object ontologies in food waste practices in Finnish households, supermarkets and biogas plants. *Environ Innov Soc Trans* 39:278–290. <https://doi.org/10.1016/j.eist.2021.04.002>
15. Burke H, Zhang A, Wang JX (2021) Integrating product design and supply chain management for a circular economy. *Prod Plann Control* 34(11):1097–1113. <https://doi.org/10.1080/09537287.2021.1983063>
16. Dobernig K, Schanes K (2019) Domestic spaces and beyond: consumer food waste in the context of shopping and storing routines. *Int J Consum Stud* 43(5):480–489. <https://doi.org/10.1111/ijcs.12527>

Data-Centric Business and Applications

Lecture Notes on Data Engineering and Communications Technologies vol. 240. Springer, 2025. pp 379–395

17. Lee KCL (2018) Grocery shopping, food waste, and the retail landscape of cities: the case of Seoul. *J Clean Prod* 172:325–334.
<https://doi.org/10.1016/j.jclepro.2017.10.085>
18. Paparella A, Vecchio R, Cembalo L, Lombardi A (2022) Measuring consumer effort in circular economy initiatives in the food domain: an exploratory analysis. *SSRN Electron J.* <https://doi.org/10.2139/ssrn.4191131>
19. Revilla BP, Salet W (2018) The social meaning and function of household food rituals in preventing food waste. *J Clean Prod* 198:320–332.
<https://doi.org/10.1016/j.jclepro.2018.06.038>
20. Hebrok M, Heidenstrøm N (2019) Contextualising food waste prevention—decisive moments within everyday practices. *J Clean Prod* 210:1435–1448.
<https://doi.org/10.1016/j.jclepro.2018.11.141>
21. Mattila M, Mesiranta N, Närvänen E, Koskinen O, Sutinen U-M (2018) Dances with potential food waste: organising temporality in food waste reduction practices. *Time Soc* 28(4):1619–1644. <https://doi.org/10.1177/0961463x18784123>
22. Priss O, Korchynskyy I, Kryvko Y, Korchynska O (2023) Leveraging horseradish’s bioactive substances for sustainable agricultural development. *Int J Sustain Dev Plann* 18(8):2563–2570. <https://doi.org/10.18280/ijstdp.180828>
23. Wongsachia S, Naruetharadhol P, Pienwisetkaew T, Gawborisut S, Ketkaew C (2024) Unleashing customer empathy in the circular economy: development of a high-calcium fish sausage prototype from fermented fish residue. *Future Foods* 9:100291.
<https://doi.org/10.1016/j.fufo.2023.100291>
24. Hebrok M, Boks C (2017) Household food waste: drivers and potential intervention points for design—an extensive review. *J Clean Prod* 151:380–392.
<https://doi.org/10.1016/j.jclepro.2017.03.069>
25. Barone AM, Grappi S, Romani S (2019) “The road to food waste is paved with good intentions”: when consumers’ goals inhibit the minimization of household food waste. *Resour Conserv Recycl* 149:97–105.
<https://doi.org/10.1016/j.resconrec.2019.05.037>
26. Legeza D, Vlasiuk Y, Kulish T, Sokil Y, Feng W, Ahrorov F, Yessengaziyeva S (2024) The technological and environmental effect on marketing of children’s food. In: *Lecture notes on data engineering and communications technologies*, pp 387–410.
https://doi.org/10.1007/978-3-031-53984-8_17
27. Pakpahan FH, Saragih M (2022) Theory of cognitive development by Jean Piaget. *J Appl Linguist* 2(2):55–60. <https://doi.org/10.52622/joal.v2i2.79>

Data-Centric Business and Applications

Lecture Notes on Data Engineering and Communications Technologies vol. 240. Springer, 2025. pp 379–395

28. Dzhedzhula V, Hurochkina V, Yepifanova I, Telnov A (2022) Fuzzy technologies for modeling social capital in the emergent economy. WSEAS Trans Bus Econ 19:915–923. <https://doi.org/10.37394/23207.2022.19.80>
29. Dzhedzhula V, Yepifanova I, Kravchyk Y (2022) Use of the theory of fuzzy sets in determining the level of enterprise security. In: 2022 12th International conference on advanced computer information technologies (ACIT). IEEE, pp 311–315. <https://doi.org/10.1109/acit54803.2022.9913150>
30. Voynarenko M, Dzhedzhula V, Yepifanova I (2016) Modelling the process of making decisions on sources of financing of innovation activity. Econ Ann XXI 160(7–8):126–129. <https://doi.org/10.21003/ea.v160-25>