Asian Journal of Research in Education and Social Sciences
e-ISSN: 2682-8502 | Vol. 8, No. 3, 223-234, 2026
https://asianscholarsnetwork.com/asnet-journals
SPECIAL ISSUE: TheSustainImpact International Conference 2026

Mechanisms of Digital Platform Empowerment for the Sustainable Development of Sichuan's Food Industry

Zhang Haibo[1,2], Faridah Hj Hassan[1*], Hou Hongmei[2]

[1] Faculty of Business and Technology, UNITAR International University, Petaling Jaya, Malaysia
[2] School of Digital Economy and Management, Sichuan Technology and Business University, Meishan, China

*Corresponding Author: profdrfaridah@gmail.com

Received: 13 February 2026 | Accepted: 30 March 2026 | Published: 20 April 2026

DOI: https://doi.org/10.55057/ajress.2026.8.3.21

Abstract: *Digital platforms have profoundly impacted China's food industry, but existing research has only discussed their contribution to sustainable development in a general way, lacking research on related mechanisms. This study takes the food industry in Sichuan Province as an example to explore how digital platforms shape the sustainable development of the regional food industry, focusing on Sustainable Development Goal 12 (responsible consumption and production). This study adopts a mechanism-based analysis approach to explore how different types of platforms—including agricultural e-commerce platforms, food supply chain platforms, and service platforms—affect market access, production organization, logistics coordination, and governance practices in the food industry, and to explore how the digital economy empowers the development mechanism of the regional food industry. The research data mainly comes from policy documents, industry reports, and representative practical cases in Sichuan Province. The research results identify four major empowerment mechanisms: (1) Digital platforms enhance market connectivity, connecting dispersed producers and processors with a wider consumer market and strengthening value chain integration. (2) Digital platforms improve coordination by supporting the digitalization of production and logistics, thereby improving operational efficiency. (3) Digital platforms provide new service roles and flexible work arrangements, expanding employment and income opportunities. (4) Digital platforms reduce information asymmetry, improve information transparency and traceability, and strengthen food safety governance. These mechanisms contribute to achieving SDG12. This study provides evidence based on regional food industries, illustrating how digital platforms can empower and link to SDG12 outcomes, and offers policy recommendations for sustainable development strategies supported by digital platforms.*

Keywords: Digital Platforms; Platform Economy; SDG12; Food Industry; Sichuan Province

1. Introduction

With the rapid development of the digital economy, digital platforms have profoundly reshaped the global and regional food industries, providing new opportunities for improving production efficiency, expanding market access, and advancing sustainable practices (Konfo et al., 2023). The platform economy has gained significant attention due to its potential contribution to sustainable development, but its alignment with the global sustainable development framework (especially the UN SDGs) still requires further investigation (Fuster Morell et al., 2021). Existing platform economy models are strongly correlated with SDG12 (responsible

consumption and production), such as models oriented towards "platform cooperativism," but many digital platforms still fail to explicitly integrate sustainability in their operations, potentially leading to imbalances in socio-economic and environmental outcomes (Fuster Morell et al., 2021). A key gap remains between platform-driven digital transformation and the achievement of Sustainable Development Goals.

Sichuan Province, located in China's strategic hinterland and serving as a crucial agricultural production and food processing center, continues to strengthen its "Tianfu Granary" construction. The digital transformation of agricultural production and processing, including the increasing prevalence of agricultural e-commerce, supply chain management platforms, and online food delivery services, is becoming increasingly widespread. Existing research remains insufficiently clear on the mechanisms by which digital platforms promote sustainable development, such as platform dependence, uneven stakeholder benefits, and insufficient integration of sustainable development goals into platform operations. Researching how digital platforms empower regional food industries to achieve sustainable development goals is beneficial for policymaking and industrial development.

The main objective of this study is to construct a framework mechanism that integrates digital platforms with the sustainable development of regional food industries. The theoretical contribution of this study combines platform economy theory with the framework of sustainable development goals, using a structured perspective to elucidate how digitalization impacts the industrial, social, and environmental dimensions of sustainable development. In terms of practical contributions, this study provides recommendations for policymakers, digital platform operators, and stakeholders to promote inclusive growth, improve supply chain efficiency, and enhance platform strategies for production and consumption.

This study primarily investigates two questions: (1) What are the key mechanisms of digital platforms in promoting the sustainable development of regional food industries? (2) In the context of Sichuan's food industry, how do these mechanisms promote the responsible production and consumption outcomes proposed in SDG12 ?

2. Literature Review

2.1 Digital Platforms and Sustainability

Digital platforms are not only reshaping economic activities across industries but also serving as a key organizational form for value creation. As intermediaries, platforms facilitate interactions among multiple user groups, generating network effects and improving market efficiency (Kenney & Zysman., 2020).

Scholars are focusing on the relationship between digital platforms and sustainable development outcomes. Platforms can promote resource sharing, improve coordination efficiency, and support business models that adapt to environmental and social goals, thereby driving sustainable development (Fuster Morell et al., 2020). However, some critical perspectives suggest that power asymmetry between platform owners and users may lead to new inequalities and governance challenges (van Doorn., 2017).

While digital platforms have the potential to promote sustainable development, their actual impact is influenced by governance structures, the institutional environment, and specific industry characteristics.

2.2 Digitalization of Food Industries

Digital transformation is a driving force in the food industry, impacting all stages of production, processing, logistics, and distribution. Information and communication technologies (ICTs) can improve the operational efficiency of agricultural and food systems, support decision-making, and enhance the efficiency and effectiveness of decisions (Bucci et al., 2019).

Recent research, in addition to efficiency-oriented perspectives, has begun to examine the broader structural impacts of digitalization on the food industry. Digitalization not only enhances information flow and strengthens operational coordination (Konfo et al., 2023), but also reshapes the organizational structure, governance arrangements, and value distribution of agricultural supply chains. Further research indicates that digital technologies and platform systems can transform traditional linear supply chains into networked and data-driven models, altering the roles and bargaining power of different participants (Ahmadi et al., 2025).

The impact of digitalization varies across regions and industries, depending on the context. Digital tools can improve production efficiency and traceability, but without appropriate governance mechanisms, they can lead to imbalances and create new dependencies. Digitalization does not automatically bring sustainable development; rather, its sustainability is influenced by the institutional environment, regional industrial structure, and policy framework (Ahmadi et al., 2025). Digital tools such as e-commerce platforms, data-driven logistics systems, and traceability technologies are being used more and more widely in the agricultural product supply chain, which helps to improve food safety and supply chain resilience, especially in regions with dispersed production structures.

2.3 Digital Platforms, Food Industries, and SDG12

Scholars have studied how digital platforms support responsible production and consumption, and how they advance the achievement of the SDG12. Digital platforms are seen as enablers of sustainable development, enhancing the coordination, transparency, and operational efficiency of production and consumption systems, aligning economic activities with broader environmental and social goals (Secundo et al., 2022).

Research on the digitalization of the food industry indicates that digitalization is relevant to SDG 12 (responsible consumption and production). Through mechanisms such as supply chain digitalization, traceability systems, and data-driven coordination, digital platforms help reduce food loss and waste, improve food safety, and support sustainable consumption patterns (Sridhar et al., 2023). However, existing empirical evidence remains fragmented, and there is limited evidence to demonstrate how platform mechanisms translate into SDG 12 outcomes in specific regions and industries.

2.4 Theoretical Frameworks and Conceptual Mapping

The literature draws on various theoretical perspectives to explain the relationship between digital platforms and sustainability. Platform economy theory emphasizes value co-creation, network effects, and governance mechanisms, while the SDG12 framework provides a normative perspective for assessing sustainability-oriented outcomes (Xue et al., 2020; Fuster Morell et al., 2020). Regional development theory helps explain how digital platforms reshape food systems within local economic and industrial environments (Nijkamp & Abreu., 2009).

Based on these perspectives, previous research has primarily focused on three dimensions: (1) platform functions (e.g., market connectivity, coordination, and data integration); (2) food industry processes (e.g., production, processing, and distribution); and (3) sustainability

outcomes aligned with the SDGs. While existing research provides analytical frameworks, empirical studies systematically integrating these three dimensions within specific regional and industry contexts remain relatively scarce.

2.5 Research Gaps

Previous research has highlighted the potential of digital platforms in enhancing sustainability and promoting the SDGs, but some shortcomings remain. Mechanisms explaining how the functions of digital platforms translate into concrete SDG outcomes are insufficient. The insufficient representation of regional food industries in empirical studies limits the understanding of the localization impact of digital platforms. While the application of the SDG framework is increasingly widespread, it is often descriptive, lacking systematic analytical models.

This study analyzes how digital platforms empower the sustainable development of Sichuan's food industry, primarily from a regional perspective and in line with the SDG12 . It links the promotion of digital transformation in the food industry by digital platforms with responsible production and consumption, possessing both theoretical and practical significance.

3. Methods

3.1 Research Design

This study selects the Sichuan food industry as a case study. Sichuan Province in China has a sound foundation in agricultural product production and processing, and has achieved significant results in digital transformation thanks to policy support. Using a qualitative case study approach, this study explores how digital platforms can empower the sustainable development of Sichuan's regional food industry, particularly in line with SDG12 (responsible consumption and production).

3.2 Analytical Framework

This study is based on three interrelated theoretical perspectives to support the analysis of digital platforms and sustainable development in the regional food industry.

Platform economy theory provides the primary analytical foundation, conceptualizing digital platforms as multilateral markets that facilitate interaction among heterogeneous participants through network effects, data-driven coordination, and platform governance mechanisms (Xue et al., 2020). In the food industry, platforms coordinate relationships between farmers, processors, logistics providers, retailers, and consumers, thereby influencing market access, value distribution, and industry organization.

The SDGs framework serves as an assessment perspective, focusing particularly on SDG 12 (Responsible Consumption and Production) (UN, 2023). This framework supports a structured assessment of how platform-enabled transformation impacts productivity, resource utilization, consumption patterns, and governance capacity.

Regional development theory analyzes the impact of digital platforms under specific socioeconomic and institutional conditions, emphasizing how local industrial structures, policy support, and spatial differences influence platform outcomes, thus helping to explain why platform empowerment effects vary regionally (Nijkamp & Abreu., 2009).

These perspectives collectively form a comprehensive analytical framework that supports the identification of platform enabling mechanisms and their mapping to the outcomes of SDG12.

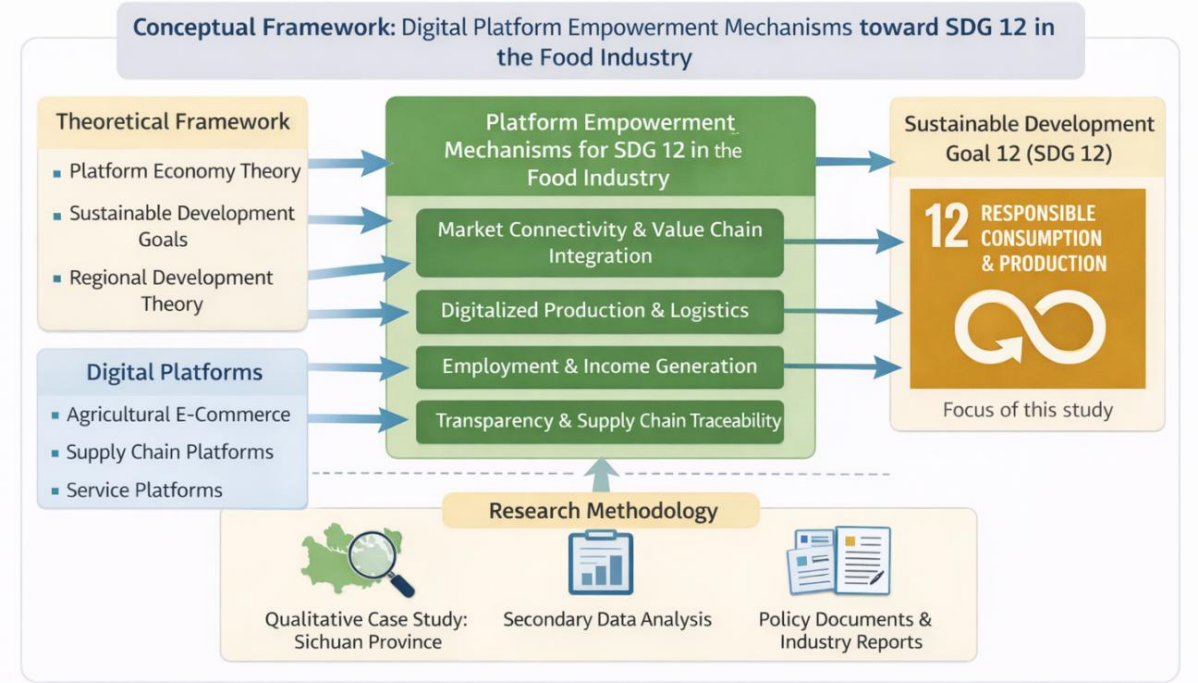

Figure 1: Conceptual Framework: Digital Platform Empowerment Mechanisms toward SDG 12 in the Food Industry

3.3 Data Sources

This study collected secondary qualitative data: (1) policy documents issued by the Chinese government and Sichuan Province related to the digital economy, agriculture, and the modernization of the food industry; (2) industry reports and statistical reports related to the development and logistics of the regional food industry; and (3) publicly available platform information, including annual reports, official websites, and corporate disclosures of representative platforms in the Sichuan food industry. In sustainability and platform governance research, especially when primary platform data is difficult to obtain, using evidence based on secondary literature is a common practice (Fuster Morell et al., 2020; Konfo et al., 2023).

This dataset contains 31 policy and industry documents published between 2015 and 2025, and 11 platform-related materials published between 2020 and 2025. A total of 42 documents were reviewed, covering policy texts, industry/statistical reports, and publicly available platform materials.

Table 1: Overview of Data Sources

Data Type	Representative Documents	Quantity	Time Range	Key Relevance to SDG 12	Analytical Purpose
Policy documents	1.China's "14th Five-Year Plan" for Digital Economy Development 2.Guiding Opinions of the Sichuan Provincial People's Government on Accelerating the Development of the Digital Economy 3.Notice from seven departments including the Ministry of Industry and Information Technology on Issuing the "Implementation Plan for Digital Transformation of the Food Industry"	19	2015-2025	Digitalization; Traceability; Food safety; governance; Resource efficiency; Waste reduction;	Policy context; Evidence triangulation; Mechanism identification; SDG 12 mapping
Industry reports & statistical publications	1.Sichuan Province Food Safety and Industrial Development Plan 2.Meituan In-Depth Report 3.Report on Industrial Clusters Empowering the Development of Sichuan's Food Industry	12	2019-2024	Digitalization; Efficiency; Food safety; Traceability; Waste reduction;	Triangulation; Validation; SDG mapping; Outcome linking;
Publicly available platform data	1.Sichuan Tianwei Food Group Co., Ltd. 2024 Annual Report 2.Sichuan Qianhe Co., Ltd. 2023 Annual Report 3.2024 Annual Development Report of Chinese Regional Cuisine	11	2020-2025	Sustainable; production; Digital supply chains; Food safety; Efficiency gains; Traceability;	Evidence validation; Mechanism support; SDG mapping; Outcome linkage; Governance assessment;

3.4 Data Analysis

Data were analyzed using qualitative content analysis and thematic coding. Coding followed a three-stage procedure: (1) open coding to extract platform-related practices and sustainability-related outcomes; (2) axial coding to cluster codes into thematic categories; and (3) selective coding to consolidate themes into broader empowerment mechanisms. This procedure is consistent with prior qualitative studies on platform-enabled governance and sustainability transitions.

To enhance reliability, findings were triangulated across different data types (policy, industry, and platform sources). Coding continued until thematic saturation was reached, indicating that no substantively new themes emerged from further analysis.

3.5 SDG 12 Mapping

After the empowerment mechanisms were identified, a structured framework-mapping procedure was applied to link each mechanism to SDG 12 targets. A mechanism was mapped only when it was supported by explicit evidence in the dataset and when the proposed linkage was conceptually consistent with the scope of SDG 12. This approach follows SDG-oriented platform economy research that emphasizes target-level alignment based on documented evidence.

4. Results

4.1 Data Characteristics

The collected datasets reveal the integration of digital platforms with Sichuan's food industry, including core aspects such as the expansion of agricultural e-commerce, logistics modernization, cold chain upgrading, rural employment creation, and traceability governance. Policy documents view digital transformation based on digital platforms as a strategic path to improve the efficiency and strengthen governance capabilities of the food industry, reflecting the major trend of the platform economy reshaping industry organization (Xue et al., 2020).

Industry reports and platform data emphasize the role of digital technologies (e.g., IoT-based monitoring, data-driven logistics, and traceability systems) in reducing food loss and enhancing supply chain coordination, consistent with existing evidence on the digital transformation of agri-food (Konfo et al., 2023; Ahmadi et al., 2025).

4.2 Platform Empowerment Mechanisms

Preliminary research identified four key mechanisms by which digital platforms empower the sustainable development and transformation of Sichuan's food industry.

Mechanism 1: Market Connectivity and Value Chain Integration.
Digital platforms possess the core advantages of multilateral markets, with indirect network effects and intermediary matching reshaping market efficiency and industrial organization (Xue et al., 2020). Digital platforms connect dispersed producers, processors, and distributors, strengthening market access, thereby reducing transaction barriers and improving supply and demand collaboration (Kenney & Zysman., 2020).

Mechanism 2: Digitalization of Production and Logistics Processes.
At the system level, digital tools can also enhance coordination and information exchange among stakeholders in the agri-food chain (Ahmadi et al., 2025). Digital platforms digitally coordinate logistics, order management, and cold chain systems, improving operational efficiency, reducing food spoilage, and increasing resource utilization. These impacts are consistent with research on agri-food digitalization, where artificial intelligence, the Internet of Things, and data-driven systems have significant effects on improving food processing and supply chain performance (Konfo et al., 2023).

Mechanism 3: Employment and Income Expansion.
Digital platforms create new employment opportunities in logistics, online marketing, and digital operations, contributing to rural income diversification and strengthening the human capital base of regional food industries. However, platform-related employment may also carry risks, such as unstable working conditions and unequal income distribution, which have been extensively discussed in platform labor research (van Doorn, 2017; Dasgupta et al., 2025).

Mechanism 4: Transparency and Traceability Governance.
Platform governance design, transparency mechanisms, and data-related policies are key factors determining whether platforms can positively contribute to sustainable development outcomes and the achievement of Sustainable Development Goals (Fuster Morell et al., 2020; Fuster Morell et al., 2021). Digital platforms enable traceability systems and information disclosure mechanisms, reducing information asymmetry, strengthening food safety governance, enhancing consumer trust, and supporting responsible consumption.

Table 2 summarizes the coding-based evidence supporting these mechanisms.

Table 2: Evidence Matrix for Mechanism Identification

Empowerment Mechanism	Representative Coding Themes	Main Evidence Sources	Key Observed Outcomes
Market connectivity & value chain integration	online distribution, market matching, reduced transaction costs	policy texts; e-commerce platform materials; industry reports	expanded market access, reduced fragmentation
Digitalization of production & logistics	cold-chain upgrading, digital scheduling, inventory optimization	logistics policies; supply chain reports; corporate disclosures	reduced spoilage, improved efficiency
Employment & income expansion	rural jobs, platform entrepreneurship, digital skills	rural revitalization policies; labor-related platform reports	income diversification, job creation
Transparency & traceability governance	QR traceability, certification disclosure, monitoring systems	food safety governance policies; traceability system reports	improved supervision, consumer trust

4.3 SDG 12 Mapping Results

The platform's empowerment mechanisms are mapped to SDG12. Mechanism 1: Market connectivity and value chain integration are mapped to 12.3 and 12.6. Mechanism 2: Digitalization of production and logistics are mapped to 12.2 and 12.3. Mechanism 3: Employment and income growth are mapped to 12.6 and 12.8. Mechanism 4: Transparency and traceability governance are mapped to 12.6, 12.7, and 12.8.

Table 3: SDG 12 Mapping Matrix: Platform Mechanisms and Target Linkages

Platform Empowerment Mechanism	SDG 12 Target Alignment	Sustainability Contribution
Market connectivity & value chain integration	12.3, 12.6	improves supply–demand matching, reduces waste and inefficiencies
Digitalization of production & logistics	12.2, 12.3	reduces food loss and improves resource efficiency through coordination
Employment & income expansion	12.6, 12.8	strengthens human-capital capacity for sustainable production practices
Transparency & traceability governance	12.6, 12.7, 12.8	enhances accountability, supports responsible consumption and governance

4.4 Summary of Key Findings

Digital platforms empower the sustainable development of Sichuan's food industry through market connectivity and value chain integration, digitalization of production and logistics, employment and income growth, and transparency and traceability governance. The proposed four mechanisms support SDG12 and have a positive impact on reducing waste, improving resource efficiency, and strengthening responsible production and consumption practices. Sustainable development depends on governance design and also faces risks of platform dependence and unequal distribution of benefits, consistent with critical research on the platform economy. Policy documents point out that over-reliance on mainstream digital platforms may increase the dependence risks for small producers and businesses. Industry reports also emphasize that the distribution of benefits from platforms may be unequal, with larger, more interconnected companies often gaining a disproportionate advantage.

5. Discussion

5.1 Comparison with Existing Literature

The findings of this study are largely consistent with existing research, indicating that digital platforms can enhance sustainability by improving market connectivity, operational efficiency, and supply chain coordination (Secundo et al., 2022). In particular, the results align with previous studies demonstrating that platform-based digitalization can contribute to the achievement of SDG12 by reducing inefficient processes and strengthening traceability systems (Sridhar et al., 2023).

This study expands upon the existing literature by adopting a regional and mechanistic perspective. Unlike macro-level or firm-centric analyses, the Sichuan case study demonstrates that platform development may lead to unequal distribution of benefits and dependency risks among small producers. This finding provides important evidence for exploring issues such as platform governance, structural dependency, and power asymmetry within platform ecosystems.

5.2 Interpretation of Findings and Mechanism Logic

The research findings achieved their intended objectives, answering the two questions raised earlier: how digital platforms shape sustainable development paths in the regional food industry, and how the proposed empowerment mechanisms, through improved efficiency and strengthened governance, contribute to achieving SDG12.

Enhanced market connectivity and value chain integration help reduce fragmentation in production and distribution, thereby improving resource allocation and reducing transaction inefficiencies (Kenney & Zysman., 2020). Digitalization of production and logistics processes helps reduce waste, optimize inventory, and improve utilization, which is crucial for responsible production (Konfo et al., 2023). Improving employment and income can indirectly support sustainable development by enhancing operational capabilities and increasing production standardization (Secundo et al., 2022). Transparency and traceability mechanisms can strengthen food safety oversight and consumer confidence, reinforcing responsible consumption behavior.

These mechanisms embody a cumulative logic: platforms can reduce information asymmetry and transaction costs, achieve data-driven coordination, and strengthen governance across the entire food value chain. Platform empowerment is not only reflected in efficiency improvements but also in institutional and governance improvements, consistent with Sustainable Development Goal 12.

5.3 Policy Implications

The findings provide policy implications for advancing the regional food industry toward SDG12. Policymakers should view digital platforms as strategic infrastructure for strengthening food supply chain governance, not merely as commercial intermediaries (Kenney & Zysman, 2020). Supporting platform development in areas such as cold chain logistics, supply chain coordination, and traceability systems can reduce food loss, improve food safety, and enhance transparency (Sridhar et al., 2023).

Strengthening governance mechanisms is crucial to mitigate the risks of platform dependence and unequal distribution of benefits (van Doorn., 2017). Regulatory standards related to data transparency, platform accountability, and rules for equitable participation are needed to ensure

that platform-based development delivers inclusive and sustainable development outcomes. Expanding capacity-building programs is essential to enhance the digital skills and operational readiness of small producers and rural food enterprises, enabling them to participate more effectively in platform-mediated markets.

5.4 Theoretical Contributions

This study uses SDG 12 as an assessment framework. By constructing a mechanism-based explanatory framework, it elucidates how digital platforms support sustainable development outcomes in the regional food industry, thus contributing to relevant theories. The study identifies four specific enabling mechanisms that link platform functions to SDG 12 outcomes. The results expand platform economy theory, demonstrating that sustainable outcomes depend not only on efficiency improvements but also on governance capacity and institutional embedding. This research, set against the backdrop of the digital transformation of Sichuan Province's food industry, explores the integration of digital platforms with SDG-oriented sustainability assessments. This is an emerging research perspective with significant academic contributions.

5.5 Limitations

This study has some limitations. It uses Sichuan Province as the sole qualitative case study, which may not be applicable to other regions. Reliance on secondary data limits the depth of understanding of platform user interactions and corporate decision-making processes. Issues such as labor market instability and monopoly risks are not addressed and require further investigation in future research.

6. Conclusion

6.1 Conclusions

This study examined how digital platforms empower the sustainable development of Sichuan's regional food industry, with a specific focus on SDG 12. The findings suggest that digital platforms contribute to responsible production and consumption by improving market connectivity, digitalizing production and logistics processes, expanding employment-related capacity, and strengthening transparency and traceability mechanisms. The study also indicates that platform-enabled sustainability outcomes are not automatic but are shaped by governance design and regional institutional conditions. Overall, this research offers a mechanism-based perspective that clarifies how digital platforms can facilitate sustainability transitions in regional food industries.

6.2 Recommendations

a) Strengthen platform-based governance frameworks by introducing clearer regulatory standards for data transparency, traceability requirements, and platform accountability in food supply chains.
b) Promote inclusive platform participation through targeted investment in digital infrastructure and capacity-building programs for small producers and rural food enterprises.
c) Encourage sustainability-oriented platform innovation, particularly in cold-chain logistics, waste reduction systems, and SDG 12-aligned operational practices.

Acknowledgement
The authors would like to express their sincere gratitude to UNITAR International University and Sichuan Technology and Business University for their academic support and resources provided during the research process. Special thanks are extended to Prof. Dr. Faridah Hj Hassan for her invaluable guidance, constructive feedback, and continuous encouragement throughout the study.

Conflict of Interest Statement
The authors declare that there is no conflict of interest regarding the publication of this study.

References

Konfo, T. R. C., Djouhou, F. M. C., Hounhouigan, M. H., Dahouenon-Ahoussi, E., Avlessi, F., & Sohounhloue, C. K. D. (2023). Recent advances in the use of digital technologies in agri-food processing: A short review. *Applied Food Research, 3*(2), 100329. https://doi.org/10.1016/j.afres.2023.100329

Fuster Morell, M., Espelt, R., & Senabre Hidalgo, E. (2021). Data for sustainable platform economy: Connections between platform models and sustainable development goals. *Data, 6*(2), 7. https://doi.org/10.3390/data6020007

Fuster Morell, M., Espelt, R., & Renau Cano, M. (2020). Sustainable platform economy: Connections with the sustainable development goals. *Sustainability, 12*(18), 7640. https://doi.org/10.3390/su12187640

Kenney, M., & Zysman, J. (2020). The platform economy: Restructuring the space of capitalist accumulation. *Cambridge Journal of Regions, Economy and Society, 13*(1), 55–76. https://doi.org/10.1093/cjres/rsaa001

van Doorn, N. (2017). Platform labor: On the gendered and racialized exploitation of low-income service work in the "on-demand" economy. *Information, Communication & Society, 20*(6), 898–914. https://doi.org/10.1080/1369118X.2017.1294194

Secundo, G., Schena, R., & Russo, A. (2022). Digital technologies for sustainable business models: The role of digital platforms. *Business Strategy and the Environment, 31*(3), 1095–1109. https://doi.org/10.1002/bse.2950

Xue, C., Tian, W., & Zhao, X. (2020). The literature review of platform economy. *Scientific Programming, 2020*, 8877128. https://doi.org/10.1155/2020/8877128

Bourhlal, A., & Alhaderi, K. (2025). Digital transformation and SME performance: A systematic literature review. In C. El Mokhi, C. Hachimi, N. Hmina, & A. Addaim (Eds.), *Progress in intelligent computing and secure communication systems* (Lecture Notes in Networks and Systems, Vol. 1555). Springer. https://doi.org/10.1007/978-3-031-99997-0_31

Dhimitri, E., Gabeta, A., & Bello, M. (2015). Regional development theories and models, a comparative analyse. *The USV Annals of Economics and Public Administration, 15*(2(22)), 50–58.

Sridhar, A., Ponnuchamy, M., Kumar, P. S., & Kapoor, A. (2023). Digitalisation of the agro-food sector for achieving sustainable development goals: A review. *Sustainable Food Technology, 1*(6), 783–802. https://doi.org/10.1039/D3FB00124E

Chkarat, H., Abid, T., & Sauvée, L. (2023). Conditions for a convergence between digital platforms and sustainability in agriculture. *Sustainability, 15*(19), 14195. https://doi.org/10.3390/su151914195

Bresciani, S., Ferraris, A., & Del Giudice, M. (2018). The management of organizational ambidexterity through alliances in a new context of analysis: Internet of Things (IoT)

smart city projects. *Technological Forecasting and Social Change, 136*, 331–338. https://doi.org/10.1016/j.techfore.2017.03.002

Bucci, G., Bentivoglio, D., & Finco, A. (2019). Factors affecting ICT adoption in agriculture: A case study in Italy. *Calitatea, 20*(S2), 122–129.

Ahmadi, S., Amendolagine, V., & LaSala, P. (2025). Unpacking the impacts of digitalization of knowledge transfer in agri-food sector, through sociotechnical systems theory: A systematic literature review. *Agricultural and Food Economics, 13*, 51. https://doi.org/10.1186/s40100-025-00393-3

Li, Z., Zhou, Q., & Wang, K. (2024). The impact of the digital economy on industrial structure upgrading in resource-based cities: Evidence from China. *PLOS ONE, 19*(1), e0298694. https://doi.org/10.1371/journal.pone.0298694

United Nations. (2023). *The sustainable development goals report 2023*. United Nations. https://unstats.un.org/sdgs/report/2023/

Van Zanten, J. A., & Van Tulder, R. (2018). Multinational enterprises and the sustainable development goals: An institutional approach to corporate engagement. *Journal of International Business Policy, 1*(3–4), 208–233. https://doi.org/10.1057/s42214-018-0008-x

Rochet, J.-C., & Tirole, J. (2003). Platform competition in two-sided markets. *Journal of the European Economic Association, 1*(4), 990–1029. https://doi.org/10.1162/154247603322493212

Nijkamp, P., & Abreu, M. A. (2009). Regional development theory. Vrije Universiteit Amsterdam, Faculty of Economics and Business Administration.