IOSR Journal of Business and Management (IOSR-JBM)
e-ISSN:2278-487X, p-ISSN: 2319-7668. Volume 28, Issue 1. Ser. 5 (January. 2026), PP 11-16
www.iosrjournals.org

Evaluating Risk Mitigation Strategies In The Distribution Of Agricultural Subsidies: Evidence From Malawi's Farm Input Subsidy Program (FISP)

Memory Billy Kanga
University Of Zambia – Graduate School Of Business (E-Campus), Lusaka, Zambia

Abstract:
The Farm Input Subsidy Program (FISP) in Malawi was introduced to enhance smallholder productivity and food security. However, concerns persist regarding corruption, inefficiencies, and poor targeting. This study evaluates the effectiveness of risk mitigation strategies under FISP, particularly their influence on resource leakage, transparency, and farmer satisfaction. A mixed-methods approach was employed to provide a holistic understanding of the issues. Quantitative data were collected through structured questionnaires administered to 73 smallholder farmers in Central Malawi. Additionally, 10 key informant interviews were conducted with government officials, program implementers, and agricultural extension officers. Respondents were selected using purposive and snowball sampling techniques. Quantitative data were analyzed using descriptive statistics and correlation analysis, while thematic analysis was applied to qualitative responses. Findings indicate that although digital measures such as biometric verification and e-voucher systems have been introduced, awareness and effective utilization among farmers remain low. Delays in input delivery, corruption, and weak communication continue to hinder program performance. A positive association was observed between the use of risk mitigation strategies and improvements in farmer satisfaction and productivity. However, challenges in implementation and institutional capacity remain. The study recommends enhanced stakeholder engagement, training, and accountability mechanisms to improve transparency and overall program efficiency. These findings offer practical insights for policymakers and implementers aiming to strengthen agricultural subsidy programs in Malawi and similar settings.

Keywords: *Farm Input Subsidy Program, Risk Mitigation, Smallholder Farmers, Malawi, Agricultural Governance*

Date of Submission: 10-01-2026 Date of Acceptance: 20-01-2026

I. Introduction

Input subsidy programmes remain central to agricultural policy across sub-Saharan Africa because they aim to relax smallholder constraints on fertilizer and improved seed access, raise yields, and improve food security (Dorward, 2009; Jayne et al., 2018). In Malawi, the Farm Input Subsidy Program (FISP) has been one of the largest and most visible interventions in this category, but implementation risks—such as weak targeting, delayed delivery, administrative inefficiencies, and corruption—have repeatedly been identified as key threats to effectiveness (Chinsinga, 2012; Holden & Lunduka, 2012).

Corruption and resource leakage in subsidy distribution can take multiple forms: diversion of inputs, bribery at registration or redemption points, fraudulent claims, and "ghost" beneficiaries. Such behaviours create inefficiency and delay and reduce the intended welfare impact of public spending (Ahlin & Bose, 2006; Adam & Fazekas, 2021). Risk management approaches emphasize preventative controls (e.g., verification and traceability), detective controls (audits, monitoring and evaluation), and corrective actions (sanctions and process redesign) to reduce these threats.

Digital interventions are increasingly used to strengthen these controls. Biometric verification can improve targeting accuracy and reduce duplication, while e-voucher systems can enhance traceability and transparency across the supply chain (Deichmann et al., 2016; Masiero, 2020; Basir et al., 2024). However, empirical literature also notes that digital tools face implementation barriers—including infrastructure and connectivity limitations, system failures, exclusion errors, and low user literacy—which can undermine expected anti-corruption benefits (Masiero, 2020; Jouanjean, 2019; Ngugi, 2023).

Against this backdrop, this study evaluates risk mitigation strategies used in Malawi's FISP and examines how those strategies relate to (i) corruption and leakage risks, (ii) operational delays and mismanagement, (iii) uptake and perceived performance of digital interventions, and (iv) farmer satisfaction and perceived productivity changes.

II. Material And Methods

Study design

A mixed-methods design was adopted to combine descriptive measurement of farmer experiences with explanatory insights from stakeholders. Quantitative data were collected from smallholder farmers using a structured questionnaire, while qualitative data were collected through key informant interviews to contextualize governance and operational dynamics in the delivery of subsidies.

Study population and eligibility

The study targeted smallholder farmers participating in FISP in Central Malawi, alongside stakeholders involved in implementation. Smallholder farmers were defined as those cultivating five hectares or less (Minah, 2021).

Sampling and sample size

A total of 73 farmers participated in the survey. Ten key informants were interviewed. Farmers were selected based on participation in FISP and availability during data collection, while key informants were selected purposively for their institutional roles and experience with subsidy distribution processes.

Data collection

The farmer questionnaire covered socio-demographic information, awareness of risk mitigation measures, perceived effectiveness of controls, experiences of delays and errors, exposure to biometric verification and e-voucher systems, and perceptions of satisfaction and productivity effects. Key informant interviews explored corruption vulnerabilities, coordination and logistics, staff capacity, monitoring practices, and challenges in implementing digital tools.

Data analysis

Quantitative data were analyzed descriptively (frequencies, percentages) and with summary statistics (means and standard deviations) for Likert-type items. Qualitative data were analyzed thematically to identify recurring patterns and explanatory mechanisms, and findings were integrated in interpretation using Risk Management Theory and Principal-Agent Theory as analytical lenses.

Ethical considerations

Participation was voluntary, informed consent was obtained, and anonymity and confidentiality were maintained. Data were used solely for research purposes.

III. Results

Respondent characteristics

The study surveyed 73 FISP beneficiaries. Most respondents were between 18 and 54 years, and almost half had only primary education. Women represented 54.8% of respondents. Table 1 presents the detailed demographic profile.

Variable	Category	n	%
Age	18–24 years	13	17.8
	25–34 years	15	20.5
	35–44 years	20	27.4
	45–54 years	18	24.7
	55+ years	7	9.6
Education	No formal education	22	30.1
	Primary education	36	49.3
	Secondary education	11	15.1
	Tertiary education	4	5.5
Gender	Male	33	45.2
	Female	40	54.8
Household size	1–3 members	10	13.7
	4–6 members	29	39.7
	7–9 members	16	21.9
	10+ members	18	24.7
Participation in FISP	<1 year	10	13.7
	1–3 years	22	30.1
	4–6 years	17	23.3
	7+ years	24	32.9

Table 1 (8): Demographic characteristics of respondents (n=73).

Objective 1: Current risk mitigation measures and leakage

Awareness of risk mitigation measures was low: only 24.7% (18/73) reported being aware of any measures, while 75.3% (55/73) were not aware. Perceptions of effectiveness in reducing corruption were mixed: 42.5% agreed/strongly agreed, 26.0% were neutral, and 31.5% disagreed/strongly disagreed. Reported leakage was high; 56.2% indicated they had encountered instances they believed reflected resource leakage in FISP.

Likert-item statistics further show that respondents generally disagreed that risk mitigation measures were transparent and well communicated (mean=1.97; SD=1.054). Moderate confidence was expressed in monitoring and evaluation (mean=3.07; SD=1.378) and in corruption prevention (mean=3.03; SD=1.323), while perceived sufficiency of measures at implementation level was lower (mean=2.64; SD=1.378).

Item (Likert 1–5)	Mean	SD
Measures are transparent and well communicated to farmers	1.97	1.054
Measures are regularly updated to address new challenges	2.74	1.280
Confidence that strategies prevent corruption	3.03	1.323
Measures are regularly updated (alternative item)	2.96	1.821
Program regularly monitors and evaluates strategies	3.07	1.378
Measures are sufficient to address corruption at the implementation level	2.64	1.378

Table 2 (8): Awareness and perceived adequacy of risk mitigation measures—summary statistics (n=73).

Objective 2: Delays, errors, and perceived causes

Operational challenges were widespread. A total of 78.1% (57/73) had experienced delays in receiving their subsidy, and 58.9% reported receiving wrong or insufficient quantities of inputs. Respondents identified insufficient training of distribution staff (74.0%) and poor communication by implementing agencies (65.8%) as the most common contributors, alongside logistical challenges (58.0%) and corruption/fraud (31.5%).

Cause	Percent
Perceived cause of delays/mismanagement	% (n=73)
Corruption and fraud	31.5
Poor communication from implementing agencies	65.8
Insufficient training of distribution staff	74.0
Logistical challenges and transport delays	58.0

Table 3 (8): Perceived causes of delays and mismanagement (n=73).

Objective 3: Digital interventions (biometric verification and e-vouchers)

Biometric verification was the most prevalent digital intervention: 79.5% of respondents reported registration via fingerprint or facial recognition. In contrast, only 31.5% reported using an e-voucher system to claim subsidies. Perceived anti-corruption gains were limited; only 35.6% believed digital tools had reduced corruption meaningfully, while many cited operational challenges such as system failures and limited training.

Likert-item summaries indicate moderate agreement that digital interventions increase trust (mean=3.22; SD=1.121) and help prevent duplication of claims (mean=3.07; SD=1.378). Agreement was weaker regarding whether e-vouchers make the process transparent and trackable (mean=2.53; SD=1.425), reflecting limited exposure and inconsistent implementation.

Digital intervention statement (Likert 1–5)	Mean	SD
Digital interventions (biometric & e-vouchers) have increased trust	3.22	1.121
Digital systems reduced time spent waiting for subsidies	2.79	1.080
I have experienced issues/errors when using biometric/e-vouchers	1.67	1.334
Digital interventions prevent duplication of subsidy claims	3.07	1.378
Biometric verification improves accuracy of distribution	2.96	1.184
E-vouchers make the process transparent and trackable	2.53	1.425

Table 4 (8): Perceptions of digital interventions—summary statistics (n=73).

Objective 4: Farmer satisfaction, timeliness, and perceived productivity

Perceived productivity improvement was reported by 68.5% (50/73). However, only 46.6% (34/73) were satisfied with current risk mitigation strategies, and 52.1% (38/73) believed that risk mitigation strategies improved timeliness and predictability of access to subsidies.

Outcome	Yes	No
Outcome	Yes n (%)	No n (%)
Perceived productivity improvement	50 (68.5)	23 (31.5)
Satisfied with current risk mitigation strategies	34 (46.6)	39 (53.4)
Risk mitigation improved timeliness/predictability	38 (52.1)	35 (47.9)

Table 5 (8): Farmer outcomes related to risk mitigation strategies (n=73).

On Likert items, respondents moderately agreed that risk mitigation strategies increased their overall satisfaction with the distribution process (mean=3.10; SD=1.474) and contributed to increased farm productivity and profitability (mean=3.03). Perceptions that strategies reduced delays and disruptions were weaker (mean=2.52; SD=1.375), consistent with the high frequency of reported delays.

Item (Likert 1–5)	Mean	SD
Strategies increased overall satisfaction with the distribution	3.10	1.474
Strategies increased farm productivity and profitability	3.03	3.819
More confident in transparency and fairness due to strategies	2.78	1.357
Strategies reduced delays and disruptions	2.52	1.375
Easier to access subsidies timely manner compared to previous years	2.97	1.443
Better ability to plan/manage production	2.67	2.67

Table 6 (8): Perceived impacts of risk mitigation strategies—summary statistics (n=73).

IV. Discussion

Low awareness of risk mitigation measures suggests that risk management is not yet embedded as a shared accountability practice between implementers and beneficiaries. This is important because transparency and communication are widely recognized as prerequisites for effective social accountability and anti-corruption systems (Adam & Fazekas, 2021; Asante & Mullard, 2021). The very low mean for transparency/communication (1.97) indicates that farmers may be unable to recognize, use, or demand the operation of controls, weakening deterrence effects.

The high prevalence of reported leakage (56.2%) and mixed evaluations of effectiveness indicate that existing controls have not fully addressed diversion risks at implementation level. Principal-Agent Theory helps interpret this pattern: when oversight is incomplete and agents (e.g., local implementers) face weak sanctions or incentives, they may deviate from program objectives, leading to leakage and misallocation (Ahlin & Bose, 2006; Adam & Fazekas, 2021).

Delays and mismanagement were the most consistently reported challenges. The finding that 78.1% experienced delays aligns with the broader literature that identifies bureaucratic and logistics constraints as central barriers to subsidy effectiveness, particularly where distribution chains involve multiple actors and weak coordination (Dorward, 2009; Chowdhury et al., 2021). Training and communication deficits, identified by respondents as the most common causes, point to an institutional capacity gap that is amenable to managerial interventions.

Digital interventions produced partial gains. Biometric verification appears to be the most established digital control in the study context, and respondents reported moderate confidence that it improves targeting and reduces duplication. This aligns with prior evidence that biometric systems can strengthen the integrity of distribution by ensuring that subsidies are received by intended beneficiaries (Masiero, 2020). However, low e-voucher uptake (31.5%) and weaker ratings on e-voucher transparency suggest that the digital transformation of subsidy delivery remains incomplete and uneven, consistent with literature emphasizing infrastructure and usability constraints (Deichmann et al., 2016; Jouanjean, 2019; Basir et al., 2024).

Finally, the gap between perceived productivity improvements (68.5%) and satisfaction (46.6%) suggests that farmer outcomes are shaped by both the material value of inputs and the experience of service delivery. The literature indicates that timely, predictable delivery is a key determinant of trust and satisfaction (Lameck, 2016) and can support productivity gains by aligning input access with agronomic calendars (Ray et al., 2023). The mixed perceptions of improved timeliness in this study underscore the need to address operational bottlenecks alongside anti-corruption controls.

V. Conclusion

Risk mitigation strategies in Malawi's FISP show signs of progress—particularly through the use of biometric verification—but the overall risk control environment remains constrained by low beneficiary awareness, continued leakage perceptions, and persistent distribution delays. Digital tools have improved trust and reduced duplication risks for many farmers, yet the limited use of e-vouchers and ongoing capacity and logistics challenges restrict broader gains. Strengthening communication, training, and monitoring—alongside scaling reliable digital systems—appears critical for translating risk mitigation into improved timeliness, satisfaction, and sustained productivity outcomes.

VI. Recommendations

• Improve communication and farmer education: institutionalize clear, locally accessible communication on eligibility, risk controls, complaint mechanisms, and distribution schedules, including community meetings and extension-led briefings.

• Strengthen capacity and supervision at distribution points: provide standardized training for staff on procedures, ethics, and digital tools, with stronger supervision, sanctions for misconduct, and routine audits.
• Scale and stabilize digital interventions: expand e-voucher coverage with adequate infrastructure (connectivity, devices, power), user support, and contingency processes to reduce system failures and exclusion errors.
• Enhance community-based monitoring and grievance mechanisms: formalize roles for farmer committees and create rapid-response complaint channels to detect leakage and resolve registration/claim disputes.

Acknowledgement

First and foremost, I would like to express my sincere gratitude to my supervisor, Dr Collins Otieno Odoyo, for his invaluable guidance, encouragement, and constructive feedback throughout the research process. Your mentorship has been instrumental in shaping this work. I am also deeply thankful to TradeMark Africa for partially funding my academic journey. Your support significantly eased the financial burden and enabled me to pursue this study with focus and determination. Finally, I would like to acknowledge myself for the commitment, perseverance, and dedication that saw this research through to completion. Balancing work, study, and personal responsibilities was challenging, but my resolve remained strong. To everyone who contributed to this journey in one way or another, thank you.

References

[1]. Adam, I., & Fazekas, M. (2021). Are Emerging Technologies Helping Win The Fight Against Corruption? A Review Of The State Of Evidence. Information Economics And Policy, 57, 100950. Https://Doi.Org/10.1016/J.Infoecopol.2021.100950
[2]. Ahlin, C., & Bose, P. (2006). Bribery, Inefficiency, And Bureaucratic Delay. Journal Of Development Economics, 84(1), 465–486. Https://Doi.Org/10.1016/J.Jdeveco.2005.12.002
[3]. Arias-Granada, Y., & Ricker-Gilbert, J. (2024). Estimating The Effectiveness Of Public Versus Private Distribution Systems: Insights From A Fertilizer Policy Reform In Malawi. The Journal Of Development Studies, 1–24. Https://Doi.Org/10.1080/00220388.2024.2413089
[4]. Asante, K. T., & Mullard, S. (2021). Social Accountability And Anti-Corruption In Ghana's Fertiliser Subsidy Programme. U4 Issue, 2021(6). Https://Www.Researchgate.Net/Profile/Kofi-Asante-3/Publication/355675455
[5]. Banda, M. M. (2019). The Use Of E-Voucher System By Small Scale Farmers In Chongwe District: An Adult Education Perspective (Doctoral Dissertation, The University Of Zambia). Https://Dspace.Unza.Zm/Handle/123456789/8328
[6]. Basir, M. S., Buckmaster, D., Raturi, A., & Zhang, Y. (2024). From Pen And Paper To Digital Precision: A Comprehensive Review Of On-Farm Recordkeeping. Precision Agriculture, 25(5), 2643–2682. Https://Doi.Org/10.1007/S11119-024-10172-7
[7]. Bhardwaj, A., & Cyphert, D. (2020). Direct Benefit Transfer Using Aadhaar. In Advances In Electronic Government, Digital Divide, And Regional Development (Pp. 185–210). Https://Doi.Org/10.4018/978-1-7998-1791-8.Ch008
[8]. Chinsinga, B. (2012). The Political Economy Of Agricultural Policy Processes In Malawi: A Case Study Of The Fertilizer Subsidy Programme. The Institute Of Development Studies And Partner Organisations. Https://Hdl.Handle.Net/20.500.12413/2249
[9]. Chinsinga, B. (2022). Determinants Of Smallholder Farmers' Livelihood Trajectories: Evidence From Rural Malawi. Agrekon, 61(4), 399–411. Https://Doi.Org/10.1080/03031853.2022.2107030
[10]. Chowdhury, S., Rodriguez-Espindola, O., Dey, P., & Budhwar, P. (2022). Blockchain Technology Adoption For Managing Risks In Operations And Supply Chain Management: Evidence From The UK. Annals Of Operations Research, 327(1), 539–574. Https://Doi.Org/10.1007/S10479-021-04487-1
[11]. Deichmann, U., Goyal, A., & Mishra, D. (2016). Will Digital Technologies Transform Agriculture In Developing Countries? Agricultural Economics, 47(S1), 21–33. Https://Doi.Org/10.1111/Agec.12300
[12]. Dethier, J., & Effenberger, A. (2012). Agriculture And Development: A Brief Review Of The Literature. Economic Systems, 36(2), 175–205. Https://Doi.Org/10.1016/J.Ecosys.2011.09.003
[13]. Dionne, K. Y., & Horowitz, J. (2016). The Political Effects Of Agricultural Subsidies In Africa: Evidence From Malawi. World Development, 87, 215–226. Https://Doi.Org/10.1016/J.Worlddev.2016.06.011
[14]. Dorward, A. (2009). Rethinking Agricultural Input Subsidy Programmes In A Changing World [Prepared For The Trade And Markets Division, Food And Agriculture Organization Of The United Nations]. FAO. Https://Eprints.Soas.Ac.Uk/8854/1/Index.Html
[15]. Dorward, A., Chirwa, E., Boughton, D., Crawford, E., Jayne, T., Slater, R., & Tsoka, M. (2008). Towards 'Smart' Subsidies In Agriculture? Lessons In Recent Experience In Malawi. Natural Resources Perspectives, 116. Https://Eprints.Soas.Ac.Uk/16752/1/Nrperspectives%20Malawi%20smart%20subsidies.Pdf
[16]. Duncan, A., Meador, E., & Barnes, A. (2023, August 17). Farmer Networks And The Adoption Of Agricultural Innovations In East Africa. University Of Edinburgh. Https://Hdl.Handle.Net/1842/40878
[17]. Edler, J., Blind, K., Kroll, H., & Schubert, T. (2023). Technology Sovereignty As An Emerging Frame For Innovation Policy: Defining Rationales, Ends And Means. Research Policy, 52(6), 104765. Https://Doi.Org/10.1016/J.Respol.2023.104765
[18]. Ehlers, M., Huber, R., & Finger, R. (2021). Agricultural Policy In The Era Of Digitalisation. Food Policy, 100, 102019. Https://Doi.Org/10.1016/J.Foodpol.2020.102019
[19]. Foster, A. D., & Rosenzweig, M. R. (2001). Risk, Risk Management, And The Development Of Agricultural Programs. Agricultural Economics, 26(1), 45–58. Https://Doi.Org/10.1146/Annurev.Economics.102308.124433x
[20]. Gelb, A., & Mukherjee, A. (2022). Fuel Subsidy Reform And Green Taxes: Can Digital Technologies Improve State Capacity And Effectiveness? Center For Global Development. Https://Www.Cgdev.Org/Sites/Default/Files/Fuel-Subsidy-Reform-And-Green-Taxes-Can-Digital-Technologies-Improve-State-Capacity.Pdf
[21]. Holden, S. T., & Lunduka, R. W. (2012). Who Benefit From Malawi's Targeted Farm Input Subsidy Program? Forum For Development Studies, 40(1), 1–25. Https://Doi.Org/10.1080/08039410.2012.688858
[22]. Hsu, C., Tu, S., & Huang, Z. (2020). Design Of An E-Voucher System For Supporting Social Welfare Using Blockchain Technology. Sustainability, 12(8), 3362. Https://Doi.Org/10.3390/Su12083362

[23]. Jayne, T. S., Mather, D., & Nyoro, J. (2018). The Effectiveness Of Input Subsidy Programs In Sub-Saharan Africa. Food Policy, 56(1), 1–12. Https://Doi.Org/10.1007/S12571-018-0773-8

[24]. Jaspars, S., & Sathyamala, C. (2021). Digital Bodies And Digitalised Welfare: North-South Linkages In The Politics Of Food Assistance And Social Welfare (No. 687). ISS Working Paper Series / General Series. Http://Hdl.Handle.Net/1765/135643

[25]. Jouanjean, M. (2019). Digital Opportunities For Trade In The Agriculture And Food Sectors. OECD Food, Agriculture And Fisheries Working Papers. Https://Doi.Org/10.1787/91c40e07-En

[26]. Kang, K., Wang, M., & Luan, X. (2020). Decision-Making And Coordination With Government Subsidies And Fairness Concerns In The Poverty Alleviation Supply Chain. Computers & Industrial Engineering, 152, 107058. Https://Doi.Org/10.1016/J.Cie.2020.107058

[27]. Kurniawati, C. P., Sandha, O. A., Suntharanurak, S., Muhtar, E. A., & Pancasilawan, R. (2023). Investigating Accountability Of State Subsidies For Political Parties. Jurnal Tata Kelola Dan Akuntabilitas Keuangan Negara, 9(2), 201–225. Https://Doi.Org/10.28986/Jtaken.V9i2.1241

[28]. Kumar, D., & Verma, S. (N.D.). Understanding Subsidies In State Finances: Uttar Pradesh. In State Forum 2023 – A Compendium (P. 99). National Institute Of Public Finance And Policy. Https://Nipfp.Org.In/Media/Medialibrary/2024/08/State_Forum_2023_-_A_Compendium.Pdf#Page=99

[29]. Lameck, C. (2016). Impact Of Agricultural Subsidies To Smallholder Maize Farmers Of Mbeya District Council In Tanzania (Master's Thesis, The Ohio State University). Http://Rave.Ohiolink.Edu/Etdc/View?Acc_Num=Osu1469112342

[30]. Liu, J., & Ma, G. (2020). Study On Incentive And Supervision Mechanisms Of Technological Innovation In Megaprojects Based On The Principal-Agent Theory. Engineering, Construction And Architectural Management, 28(6), 1593–1614. Https://Doi.Org/10.1108/Ecam-03-2020-0163

[31]. Marcu, G., Ondersma, S. J., Spiller, A. N., Broderick, B. M., Kadri, R., & Buis, L. R. (2021). Barriers And Considerations In The Design And Implementation Of Digital Behavioral Interventions: Qualitative Analysis. Journal Of Medical Internet Research, 24(3), E34301. Https://Doi.Org/10.2196/34301

[32]. Masiero, S. (2020). Biometric Infrastructures And The Indian Public Distribution System. South Asia Multidisciplinary Academic Journal, 23. Https://Doi.Org/10.4000/Samaj.6459

[33]. Matita, M., Chirwa, E. W., Kaiyatsa, S., Mazalale, J., Chimombo, M., Mgalamadzi, L. M., & Chinsinga, B. (2022). Determinants Of Smallholder Farmers' Livelihood Trajectories: Evidence From Rural Malawi. Agrekon, 61(4), 399–411.

[34]. Mhlanga, D. (2024). Digital Transformation Of The Agricultural Industry In Africa. In D. Mhlanga & M. Dzingirai (Eds.), Fostering Long-Term Sustainable Development In Africa (Pp. 367–385). Palgrave Macmillan. Https://Doi.Org/10.1007/978-3-031-61321-0_19

[35]. Miller, R. L. (2018). Rogers' Innovation Diffusion Theory (1962, 1995). In IGI Global Ebooks (Pp. 1558–1571). Https://Doi.Org/10.4018/978-1-5225-5201-7.Ch073

[36]. Minah, M. (2021). What Is The Influence Of Government Programs On Farmer Organizations And Their Impacts? Evidence From Zambia. Annals Of Public And Cooperative Economy, 93(1), 29–53. Https://Doi.Org/10.1111/Apce.12316

[37]. Mbita, O. D., Nicholaus, M. R., & Twahir, R. K. (2025). Evaluating The Efficiency And Reliability Of Fertilizer Subsidy Systems: The Role Of Blockchain In Driving Enhancements In Tanzania. Journal Of Applied Science And Environmental Management, 29(1), 79–84. Https://Doi.Org/10.4314/Jasem.V29i1.11

[38]. Nkhoma, P. R. (2018). The Evolution Of Agricultural Input Subsidy Programs: Contextualizing Policy Debates In Malawi's FISP. World Development Perspectives, 9, 12–17. Https://Doi.Org/10.1016/J.Wdp.2017.12.002

[39]. Obayelu, A. E. (2016a). Sustainable Consumption And Green Marketing In Developing Countries: Contemporary Perspective Using Nigeria And Kenya As Case Studies. In H. K. Rampersad (Ed.), Handbook Of Research On Consumerism And Buying Behavior In Developing Nations (Pp. 429–451). IGI Global. Https://Doi.Org/10.4018/978-1-5225-0335-7.Ch022

[40]. Obayelu, A. E. (2016b). Cross-Country Comparison Of Voucher-Based Input Schemes In Sub-Saharan Africa Agricultural Transformation: Lessons Learned And Policy Implications. Https://Hrcak.Srce.Hr/179455

[41]. Ray, M., Singh, A. P., & Jakhar, S. K. (2023). Sustainable Farming Practices Adoption In Agriculture Supply Chain: The Role Of Indirect Support Versus Cost Subsidy. Annals Of Operations Research. Https://Doi.Org/10.1007/S10479-023-05559-0

[42]. Rodríguez-Espíndola, O., Chowdhury, S., Dey, P. K., Albores, P., & Emrouznejad, A. (2022). Analysis Of The Adoption Of Emergent Technologies For Risk Management In The Era Of Digital Manufacturing. Technological Forecasting And Social Change, 178, 121562. Https://Doi.Org/10.1016/J.Techfore.2022.121562

[43]. Siachiwena, H. (2022). International Donors, Domestic Politics, And The Expansion Of Social Cash Transfers In Malawi. Development Policy Review, 41(1). Https://Doi.Org/10.1111/Dpr.12660

[44]. Soares, A. L. V., Mendes-Filho, L., & Gretzel, U. (2021). Technology Adoption In Hotels: Applying Institutional Theory To Tourism. Tourism Review, 76(3), 669–680. Https://Doi.Org/10.1108/TR-05-2019-0153

[45]. Tambala, H. (2022). Examining The Experiences Of Smallholder Farmers In Malawi Towards Farm Input Subsidies [Master's Thesis, University Of Cape Town, Faculty Of Humanities, Department Of Social Development]. Http://Hdl.Handle.Net/11427/37344

[46]. Walls, H., Johnston, D., Matita, M., Kamwanja, T., Smith, R., & Nanama, S. (2023). The Politics Of Agricultural Policy And Nutrition: A Case Study Of Malawi's Farm Input Subsidy Programme (FISP). PLOS Global Public Health, 3(10), E0002410. Https://Doi.Org/10.1371/Journal.Pgph.0002410

[47]. Xie, S., Zhang, J., Li, X., Chen, Z., Zhang, X., & Xia, X. (2023). Impact Of Farmer Participation In Production Chain Outsourcing Services On Agricultural Output Level And Output Risk: Evidence From The Guanzhong Plain, China. Agriculture, 13(12), 2263. Https://Doi.Org/10.3390/Agriculture13122263

[48]. Xu, J., & Liao, P. (2014). Crop Insurance, Premium Subsidy And Agricultural Output. Journal Of Integrative Agriculture, 13(11), 2537–2545. Https://Doi.Org/10.1016/S2095-3119(13)60674-7

[49]. Yang, Q., Zhang, P., Li, Y., Ning, J., & Chu, N. (2023). Does The Policy Of Decoupled Subsidies Improve The Agricultural Economic Resilience?—Evidence From China's Main Corn Producing Regions. Sustainability, 15(13), 10164. Https://Doi.Org/10.3390/Su151310164