

# **Impact of Supply Chain Collaboration on the Tanzanian Agri-food Supply Chain. Intervening effect of Partner Commitment and Transaction Cost Management**

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## **Abstract**

This study aims to explore the antecedents of supply chain collaboration (SCC) and then the relationship of the multidimensional construct of SCC with supply chain performance. The paper also delves into the mediating and moderating impact of commitment and transactional cost economics at the nexus of SCC and supply chain performance. A theoretical model and associated hypotheses were established, drawing upon the systematic review of the extant literature, transactional cost economic and resource-based theories. The model was empirically validated using Structural Equation Modelling on survey data from 635 managers of the agri-food supply chain in Tanzania. Results revealed that the most influencing SCC antecedents in the agri-food supply chain include incentive alignment, goal congruence, joint knowledge creation, and decision synchronisation. We also find that SCC as a higher-order construct significantly positively impacts supply chain performance (SCP). Further, the mediation-moderation test shows that the impact of SCC on supply chain performance is partially mediated by partners commitment while significantly moderated by transactional costs management. Supply chain partners who manage transactional costs recognise potential problems, monitor deviations, and halt the possibility of partners taking advantage of the relationship, enhancing better performance.

Our study synthesised social exchange, resource based-view, transaction cost economics and resources dependency theories to explain how supply chain collaboration affects supply chain performance. As a result, supply chain collaboration construct and transaction cost economics have also been improved. This study is one of the first to uncover the role of transactional cost management in moderating the relationship between collaboration and supply chain performance. The findings show that chain partners who manage transactional costs recognise potential problems, monitor deviations, and the possibility of partners taking advantage of the relationship, resulting in better performance. Furthermore, this study addresses the literature's recurrent demand for broadening the analytical unit beyond dyadic relationships. As a result, this study broadens the scope of collaboration research beyond specific business and buyer-supplier relationships to a three-stage supply chain.

The results inform managers that full benefits of collaboration can be reaped when firms share accurate, complete and relevant crops/products information, share ownership of expensive resources, especially agricultural equipment, storage and transport facilities; and set goals on issues such as transport and storage efficiency, production/sales efficiency and projected level of returns. Regarding collaborative communication, this study verifies that open and frequent adjusted and standardised two-way, multilevel correspondence is, for the most part, a better way of enhancing joint decisions and inter-connections. The causal influence of supply chain collaboration on supply chain performance is partially conveyed through partners commitment. Therefore, supply chain managers are advised to institute a commitment ethos in their respective organisations to enhance performance.

## **Keywords**

Supply chains, Supply chain collaboration, Agri-food Supply chain, Transactional cost management, Partners commitment.

## Biographies

**Bajjet Sylvester Naresho** is a PhD student at the School of Business and Law, Central Queensland University, Australia. His current research focuses on supply chain collaboration, partners commitments, transaction cost management, and agri-food supply chains. Bajjet started his academic journey as a tutorial assistant with an Advanced Diploma in procurement and supply from the Tanzania Institute of Accountancy in 2006 before joining the Procurement and Supplies Professionals and Technicians Board (PSPTB) examinations at achieved a Certified Procurement and Supplies Professional (CPSP) qualification in 2007. In 2010, completed a Master of Science course in procurement and supply chain management from Mzumbe University before being promoted to an assistant lecturer at the Tanzania Institute of Accountancy. Taught various courses in logistics, procurement and supply chain management modules for 9.5 years before starting a research journey as a PhD candidate at the Central Queensland University Australia. The research project is on supply chain collaboration in the agricultural supply chain.

**Dr Imran Ali** is currently a Lecturer (Assistant Professor) in Operations and Innovation Management at the School of Business and Law in Central Queensland University, Australia. Imran holds a PhD in Business Management (Logistics and Supply Chain Management) from the Business School, University of South Australia. His current research focuses on regional economies and supply chains, including supply chain risk and resilience, Industry 4.0, climate change, and sustainable supply chain performance. Imran's research has been featured in several high-quality journals and conference proceedings such as *Journal of Business Research*, *IEEE Transaction on Engineering Management*, *Supply Chain Management: An International Journal*, *Production Planning and Control*, *International Journal of Physical Distribution and Logistics Management*, and *Academy of Management Best Paper Proceedings*, among others. In collaboration with UNDP and FAO of the UN, Imran has availed the opportunity to work on several promising projects around operations and supply chain management.

**Associate Professor Delwar Akbar** is a regional economist and a research leader in the supply and value chain area at Central Queensland University, Australia. He has been working with rural and regional industries and businesses to improve their productivity and sustainability. His research, during the last decade, has focused predominantly on rural and regional economics, value chain analysis, property and health economics, economic impact assessment and regional development. Along with other researchers, Delwar has received significant levels of funding support (about 6.5 million dollars) through the Category 1-4 grants. He has integrated economic models with supply chain, services and planning models. Recently, he has been developing and testing collaborative business models that could booster rural economic dynamics and international trade. Over his academic career, he has been involved with more than 60 research and consultancy projects and published over 130 refereed papers and project reports.