

# CARISCA REPORT

Centre for Applied Research and Innovation in Supply Chain – Africa

2026 • ISSUE 13



## CARISCA's 2026 SUPPLY CHAIN RESEARCH SUMMIT

📍 Accra, Ghana

📅 July 6–8, 2026

### JOIN US FOR THE 2026 SUPPLY CHAIN RESEARCH SUMMIT

CARISCA's annual Supply Chain Research Summit is central to our mission of strengthening African supply chain capacity and advancing Africa's supply chain research globally. The Summit provides a vital platform for knowledge exchange, collaboration, and evidence-based dialogue among researchers, practitioners, and policymakers shaping the future of African supply chains.

The 2025 Summit, held in Lagos, Nigeria, attracted approximately 350 participants from 17 countries, representing 87 institutions and 38 higher education institutions worldwide, and featured over 81 research presentations.

**From July 6–8, 2026, CARISCA will host its sixth Annual Supply Chain Research Summit.** In 2026, we are bringing the Summit back to Ghana to welcome

an even larger and more diverse community of supply chain scholars, students, professionals, and decision-makers. The Summit will be held at the **Cedi Conference Centre, University of Ghana, Accra**. As in previous years, the Summit will be held as a hybrid event, taking place both in person and virtually via Zoom.

This year, the Summit will explore the theme **"Transforming Supply Chains in Africa in the Age of AI,"** focusing on how artificial intelligence is reshaping supply chain design, decision-making, and governance across the continent. The Summit will take a deeper look at how AI technologies are being adopted across sectors such as manufacturing, transport and logistics, healthcare, agriculture, and education, and what this transformation means for African organizations and economies.

AI applications in supply chains include predictive AI for demand and disruption forecasting; prescriptive AI for optimal scheduling and transportation decisions; cognitive AI for supply chain scenario planning; autonomous AI such as robotics and autonomous vehicles; and generative AI for producing reports and decision-support insights. These technologies are expected to play a growing role in strengthening supply chain resilience, sustainability, and performance across Africa.

Despite their promise, AI-enabled supply chains in Africa face important challenges. Many AI systems are developed outside the continent, meaning training data may not adequately reflect Africa's socio-cultural diversity, institutional realities, and decision-making contexts. Biases embedded in AI outputs, gaps in AI governance and regulation, infrastructure constraints, and limited AI readiness among micro and small-scale organizations all pose critical questions for researchers and practitioners alike.

## GALLERY - 2025 SUPPLY CHAIN RESEARCH SUMMIT



CARISCA's

# 2026 SUPPLY CHAIN RESEARCH SUMMIT

## Call for Papers - Extended Deadline

Apply before February 16, 2026

We invite you to share your research, knowledge and insights by submitting a paper abstract for presentation at the summit.

### Summit Tracks and Topics:

- ✓ Track for Summit Theme: Transforming supply chains in Africa in the age of AI
- ✓ Track 1: General supply chains
- ✓ Track 2: Sectoral supply chains
- ✓ Track 3: Emerging issues in local and global supply chains
- ✓ Track 4: Practitioner and policy discourse on African supply chains

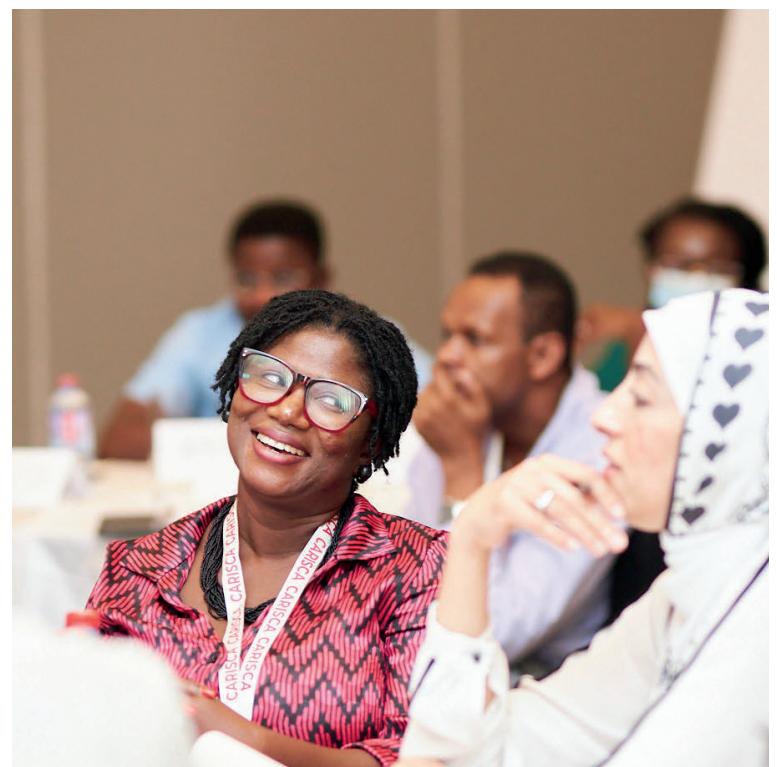
Learn more:



bit.ly/2026SCSUMMIT



SUBMISSION LINK  
[summit2026.carisca.org/login.php](http://summit2026.carisca.org/login.php)



## Call for Submissions: Paper Development Workshop (PDW)

### Developing Publishable OSCM Papers using African Datasets

The Africa Initiative of the International Journal of Operations & Production Management (IJOPM), in collaboration with CARISCA, invites Africa-based researchers to submit working papers for consideration to participate in its Paper Development Workshop (PDW).

The workshop will be held during the 2026 Supply Chain Research Summit, taking place in Accra, Ghana, from July 6–8, 2026.

### Key dates

- Submission deadline: March 31, 2026
- Notification of acceptance: April 15, 2026

Submit your working paper via  
[ijopmafricainitiative@gmail.com](mailto:ijopmafricainitiative@gmail.com)

Learn more: [bit.ly/2026PDW](http://bit.ly/2026PDW)

# THINKING CIRCULAR ECONOMY THROUGH SUPPLY CHAINS: ESTHER NTUMY LARTEY'S JOURNEY TO THE 2025 PHD DISSERTATION AWARD

From her early years in Konongo-Odumasi in Ghana's Ashanti Region, Esther Ntumy Lartey learned that education was something to be fought for, not assumed. She grew up in a humble Christian home where resources were limited, but determination ran deep.

Her parents, Elder and Mrs. Lartey, worked tirelessly to keep all their seven children in school, even when circumstances made this difficult. Along the way, Ntumy Lartey received critical support from a sponsor, the late Apostle Dr. M. K. Ntumy, and his wife, Mrs. Martha Ntumy, who recognised her academic promise and chose to invest in her education.

"I was fortunate to have a helper who decided to support me, particularly in education," she recalls. "They believed I was brilliant at the time, and that belief has stayed with me."

## Discovering a Passion for Teaching

Teaching came early to Ntumy Lartey. After completing secondary school, she entered teacher

training college and graduated at just 19 years old. She began her professional career teaching in Kumasi, and within two years, she received the Ashanti Regional Best Teacher Award.

That recognition brought her into contact with Dr. A. A. Dramani, then the Ashanti Regional Director of Education, who encouraged her to pursue further studies.

"He saw potential in me and motivated me to continue climbing the academic ladder," she says.

Teaching at the university had long been a personal goal. Through persistence and strong mentorship, she began lecturing at the university by the age of 28, earlier than she had originally imagined.

## An Unexpected Path into Supply Chain Research

Ntumy Lartey later enrolled at Kwame Nkrumah University of Science and Technology (KNUST) to study Supply Chain Management at the master's level.

As her studies progressed, she became increasingly interested in how supply chains shape organisational performance, sustainability, and decision-making. She began to notice gaps between theory and practice.

Encouraged by mentors, her academic ambitions grew, and she later enrolled in a PhD program at the Ghana Institute of Management and Public Administration (GIMPA).

## Research Grounded in Real Challenges

Ntumy Lartey's doctoral research focuses on circular economy implementation within supply chains, examined through the lens of complex adaptive systems. Rather than viewing supply chains as linear processes, she studies them as dynamic networks of interacting actors whose behaviours evolve over time. Her work addresses a pressing practical challenge. Despite increasing pressure to adopt sustainable models, many organisations struggle to implement circular economy practices effectively, with success shaped as much by uncertainty, coordination, and adaptation as by technical or financial constraints.

The research is grounded in the plastic manufacturing sector, an industry that is central to Ghana's economy yet deeply connected to environmental and waste management challenges. By focusing on this sector, her study addresses both local realities and global sustainability concerns.

Her findings highlight the importance of key system dynamics, adaptability, self-organisation, and co-evolution in shaping successful circular economy outcomes. Organisations that allow supply chain actors to learn, adjust, and collaborate flexibly are more likely to achieve sustained implementation.

"My motivation came from what companies are facing in reality," she explains. "They want sustainable solutions, but the process is complex and uncertain."

Beyond contributing to academic debates, her research offers practical insights for managers and policymakers, showing how system-aware and adaptive approaches can help bridge the gap between sustainability ambitions and real-world practice.

## The CARISCA Experience

She first encountered CARISCA during her master's studies at KNUST, when the centre was established on campus. She was immediately drawn to its mission of advancing supply chain research in Africa

Years later, while pursuing her PhD, she reconnected with CARISCA. When she learned about the PhD Dissertation Award, she felt compelled to apply.

"The standards and expectations resonated with my training at GIMPA," she says. "I felt I could compete."

Participating in the CARISCA Research Summit proved both challenging and rewarding. Presenting her research before experienced scholars within a strict time limit tested her confidence, clarity, and preparation.

"The competition was intense, with strong candidates from across the continent, she confirms".

Winning the 2025 CARISCA PhD Dissertation Award marked a defining milestone in her academic journey. Beyond the recognition, the award strengthened her confidence, expanded her professional network, and reinforced her commitment to impactful research.

Ntumy Lartey works with the Wisconsin University as a supply chain lecturer. Her institution sponsored her participation in the 2025 Supply Chain Research Summit.

## Looking Ahead

Ntumy Lartey's ambitions extend well beyond her doctoral work. She plans to establish a research and consulting platform that focuses on bridging the gap between theory and practice



Esther Ntumy Lartey

supply chain management. She is also deeply committed to mentoring young scholars particularly women who aspire to academic and research careers. She believes that attitude, discipline, and mentorship matter just as much as technical expertise.

"Someone believed in me before I fully believed in myself," she reflects. "I want to pass that on."

She attributes her success to the support of her husband, Rev. Martin Berko Kesse, and her son, Gideon Kesse, as well as the guidance of her academic mentor, Professor Ebenezer Adaku, the Vice Rector of GIMPA, and her chief supervisor, Dr. Daniel Gameti, whose insights and encouragement were invaluable throughout her PhD dissertation. She is also grateful to her other supervisors, Drs. Emmanuel Amikiya and Vivian Osei, whose mentorship played a key role in her journey.

Prof. Henry Mensah,  
Best Paper Award  
Winner, 2025



The award was generously sponsored by the International Journal of Logistics Management (IJLM) and presented by Associate Editor Prof. Nachiappan Subramanian of the University of Sussex.

## CALL FOR PAPERS: 2026 PHD DISSERTATION AWARD

CARISCA'S

### 2025 SUPPLY CHAIN RESEARCH SUMMIT

Reimagining Africa's Supply Chains for a Sustainable Future



CARISCA invites doctoral researchers to submit their work for the 2026 PhD Dissertation Award. The award recognises high-quality doctoral research with strong academic and practical relevance in supply chain and related fields.

**The call for papers is now open.**

Apply before March 31

[Learn more about PhD Dissertation Award Competition](#)

### 2025 SUPPLY CHAIN RESEARCH SUMMIT: THE CARISCA BEST PAPER AWARD

The CARISCA 2025 Best Paper Award recognizes exceptional research in supply chain management.

The inaugural award was presented to Prof. Henry Kofi Mensah, from KNUST, and his research team for their paper titled "Technological Capabilities and Supply Chain Value Creation: Exploring the Roles of Circular Economy Practices and Organizational Climate."

## CARISCA PARTNERS WITH ISCEA TO EXPAND ACCESS TO GLOBAL SUPPLY CHAIN CERTIFICATION IN GHANA



The Centre for Applied Research and Innovation in Supply Chain – Africa (CARISCA) has established a strategic collaboration with the International Supply Chain Education Alliance (ISCEA), USA. Strengthening supply chain education is a core part of CARISCA's mandate, recognising professional training and capacity development as a pathway to addressing Africa's supply chain challenges.

Through this collaboration, Ghanaian learners will gain expanded access to internationally recognised supply chain certification programmes. Under the Memorandum of Understanding, CARISCA becomes the ISCEA's regional

partner in Ghana, supporting the promotion and coordination of ISCEA's professional certification programmes in the country.

Training and certification will be delivered through ISCEA's online, on-demand learning platform ([www.isceaonline.com](http://www.isceaonline.com)), allowing flexible access for professionals, students, and practitioners nationwide. The initiative is expected to strengthen supply chain human capital development and enhance professional competencies across public and private sector supply chains.

Under the agreement, Ghanaians will benefit from the ISCEA Global Fund that will significantly reduce the cost of globally recognised credentials such as the Certified Supply Chain Analyst (CSCA), Certified Professional in Logistics Management (CPLM), Certified Sustainable Supply Chain Professional (CSSCP), and Certified Healthcare Supply Chain Analyst (CHSCA).

ISCEA will provide training content, online examinations, and electronic certification for successful candidates, and CARISCA will facilitate local engagement and programme coordination within Ghana.

### About CARISCA

The Centre for Applied Research and Innovation in Supply Chain – Africa (CARISCA) is a research and capacity-building centre hosted at KNUST, Ghana, dedicated to advancing supply chain knowledge, skills development, and innovation across Africa.

### About ISCEA

The International Supply Chain Education Alliance (ISCEA), USA, is a global leader in supply chain education and certification, offering internationally recognised professional credentials to supply chain practitioners worldwide. [www.iscea.org](http://www.iscea.org).

## FIVE YEARS OF CARISCA RESEARCH: BUILDING CAPACITY, ADVANCING KNOWLEDGE

The Center for Applied Research and Innovation in Supply Chain – Africa (CARISCA) has released its latest Research Report (June 2021–October 2025), capturing five years of research activity, publication trends, and capacity development outcomes. The report chronicles CARISCA's research journey since its establishment, highlighting how the Center has supported faculty and students at the Kwame Nkrumah University of Science and Technology (KNUST) to strengthen research skills, increase publication output, and advance supply chain scholarship across Africa.

### Expanding the Frontiers of Research

Between June 2021 and October 2025, the Center produced 140 peer-reviewed publications, including journal articles and book chapters. These works span nine major research themes:

1. General logistics and supply chain
2. Environmental sustainability
3. Disruptions, risks, and resilience
4. Technology
5. Entrepreneurship
6. Agriculture and agribusiness
7. Marketing
8. Institutional contexts and management
9. Healthcare and pharmacy

These diverse themes underscore CARISCA's interdisciplinary approach and its commitment to addressing real-world challenges through research that cuts across sectors.



### Strong Growth in Research Output

Publication trends reveal a steady rise in research output. From an average of 21 publications per year between 2021 and 2023, CARISCA's output increased to an average of 38.5 publications per year in 2024 and 2025, an 83% growth.

This sustained increase reflects the Center's continued investment in mentoring, training, and research support for both faculty and students within the Department of Supply Chain and Information Systems (SCIS) at KNUST.

### Publishing in High-Quality Journals.

The quality of CARISCA's research outputs also continues to strengthen. Nearly half of all publications appeared in top-tier journals, either Q1-ranked (top 25% globally, according to the SCImago Journal Rank) or ABS-ranked journals (recognized by the Chartered Association of Business Schools).

In total, CARISCA publications appeared in:

- 7 ABS4 journals (including one ABS4\*)
- 17 ABS3 journals
- 14 ABS2 journals
- 31 ABS1 journals

In all, 50% of the Center's publications were published in SJR Q1 journals, demonstrating CARISCA's growing presence in high-impact academic outlets and its contribution to global scholarship on supply chain management, sustainability, and development.

### Investing in Human Capacity

CARISCA's progress is anchored in its strong focus on capacity development, equipping researchers with the tools, training, and mentorship needed to conduct and publish impactful research. By building the research capabilities of faculty and students at KNUST, CARISCA has enhanced local ownership of research and strengthened the visibility of African scholarship on the global stage.

As CARISCA transitions into its next phase, the Center remains committed to promoting rigorous, collaborative, and locally relevant research that addresses Africa's supply chain challenges. Its research community continues to generate evidence that informs policy, supports innovation, and drives sustainable development across the continent.

[Download full report:](#)

## CARISCA GROWS CPD OFFERINGS

Strengthening supply chain skills across Africa is central to CARISCA's commitment to professional development. In late 2025, CARISCA delivered two free introductory CPD trainings that attracted strong global participation. The first training, Introduction to Supply Chain Analytics, was held on November 20, 2025 and facilitated by Dr. John Serbe Marfo, Senior Lecturer in the Department of Supply Chain and Information Systems at the KNUST School of Business. The session drew 174 participants from over 17 countries across Africa, Europe, Asia, and North America. This was followed by a second training on December 4, 2025, focusing on Introduction to Reverse Logistics, facilitated by Dr. Simon Peter Nadeem, Senior

Program Manager at LEARN Logistics, Kuehne Foundation. The session recorded 123 participants from over 12 countries worldwide.

Building on the strong engagement and interest generated by these introductory courses, CARISCA's 2026 CPD programme introduces a new and expanded training schedule for the year ahead. The programme is designed to deepen practical knowledge, support career progression, and respond to emerging trends in supply chain analytics, sustainability, and innovation. Through expert-led sessions and applied learning, CARISCA continues to equip professionals and scholars with relevant, future-ready supply chain capabilities.

### 2026 CPD course schedule:

Supply Chain Analytics for Decision-Making: From Data to Outcomes (Level 2)

March 26-27, 2026

Building Resilient and Continuity-Ready Supply Chains

May 27, 2026

Designing and Delivering Circular Supply Chains for Success in African markets

July 9, 2026

Ethical Procurement & Governance for Competitive Advantage

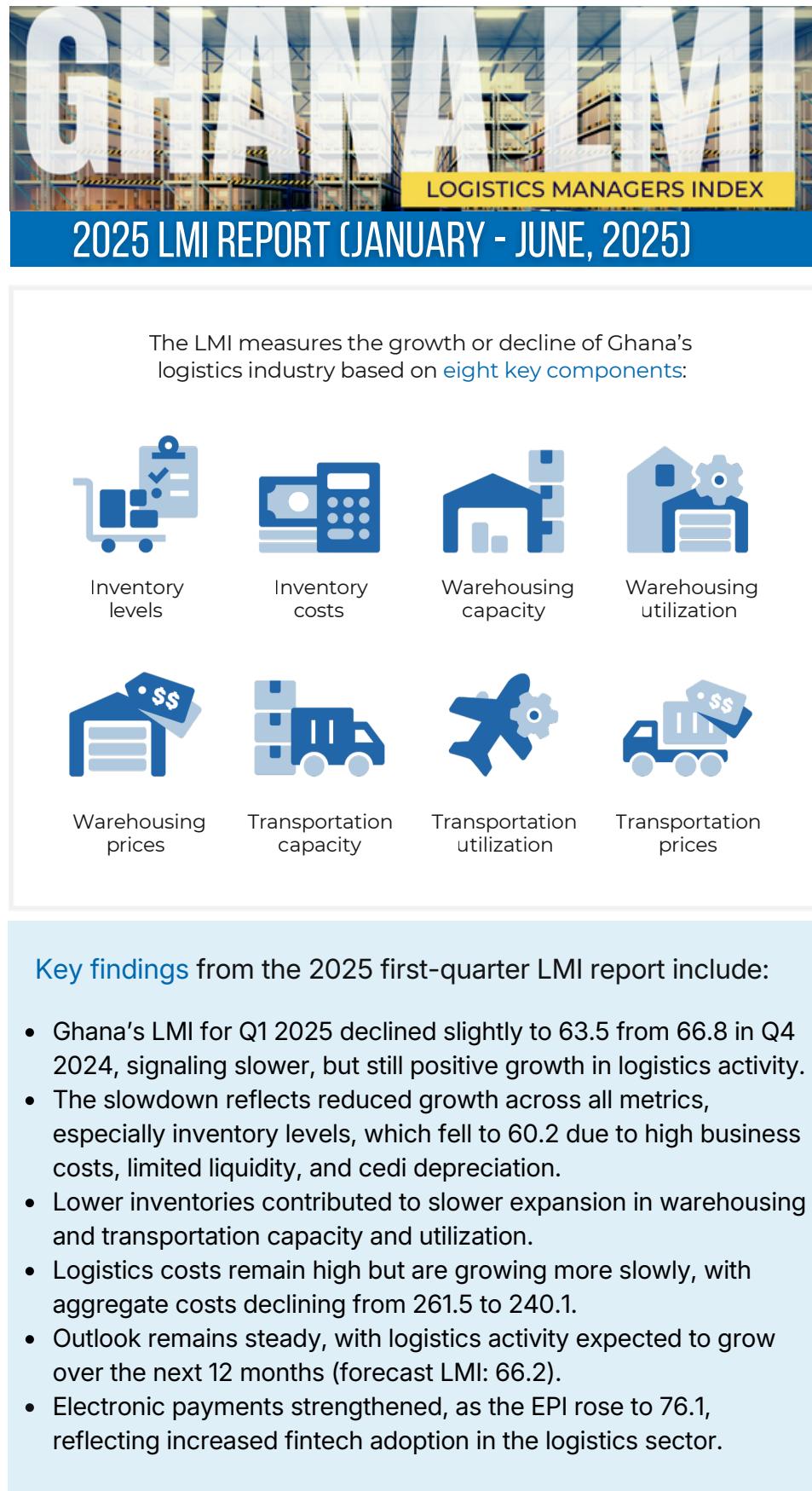
October 14, 2026

[carisca.knust.edu.gh/training/cpd](http://carisca.knust.edu.gh/training/cpd)

The Logistics Managers Index is a tool CARISCA researchers created to support decision-makers and improve businesses and livelihoods in Africa. By measuring combinations of inventory, warehouse and transportation activities and tracking the relationship between these variables, the LMI provides a timely measure of movement in logistics activities in Ghana.

The Ghana LMI, launched in 2022, is the first of its kind in Africa and a significant step toward supply chain efficiency, visibility and transparency in the country. LMI researchers have released reports since 2022. Since its inception, the Ghana Logistics Managers index has provided valuable insights about the movement of logistics activities within the country, and it has been well received by top managers in many Ghanaian organizations.

The LMI respondent list has grown steadily from the initial 130 managers in 2022 to 232 in 2025.



**Key findings** from the 2025 second-quarter LMI report include:

- Ghana's LMI for Q2 2025 fell to 57.9, down from 63.5 in Q1, marking the lowest level recorded since the index began, largely due to a sharp slowdown in logistics cost growth.
- Logistics costs declined drastically, with inventory costs, warehousing prices, and transportation prices all reaching historic lows, driving the sharp drop in the overall index.
- The decline in costs is linked to cedi appreciation, supported by the operations of the Goldboard, and lower global fuel prices.
- Aggregate logistics costs fell significantly from 240.1 to 165.9, the lowest level in the index's history.
- Lower costs encouraged strong growth in inventory levels, which rose to 74.2, the highest value ever recorded by the LMI.
- Warehousing activity improved, with utilization increasing sharply, while capacity remained largely stable.
- Transportation capacity and utilization expanded, despite transportation prices falling below the 50 threshold.
- Outlook remains cautiously positive, with logistics activity expected to grow steadily over the next 12 months (forecast LMI: 60.6).
- The Electronic Payment System Index (EPI) rose to 78.8, reflecting strong and growing adoption of digital payments in the logistics sector, with further growth expected.

LOGISTICS AT A GLANCE—(Jan-June, 2025)					
Index	June 2025 Index (Q2)	March 2025 Index (Q1)	Quarter-Over-Quarter Change	Projected Direction	Rate of Change
<b>LMI®</b>	57.9	63.5	-5.6	Growing	Decreasing
<b>Inventory Levels</b>	74.2	60.2	14	Growing	Increasing
<b>Inventory Costs</b>	53.4	80	-26.6	Growing	Decreasing
<b>Warehousing Capacity</b>	58.9	57.8	1.11	Growing	Increasing
<b>Warehousing Utilization</b>	74.1	63	11.1	Growing	Increasing
<b>Warehousing Prices</b>	69.4	75.2	-5.8	Growing	Decreasing
<b>Transportation Capacity</b>	69.6	68	1.6	Growing	Increasing
<b>Transportation Utilization</b>	77.1	70.7	6.4	Growing	Increasing
<b>Transportation Prices</b>	43.1	84.9	-41.8	Contracting	Decreasing

Senior executives and managers of Ghanaian organizations are invited to participate in the quarterly LMI surveys by visiting [carisca.knust.edu.gh/lmi](http://carisca.knust.edu.gh/lmi)

# CARISCA'S UPCOMING EVENTS

Feb. 11, 2026

## Research Capacity-Building Workshop

Paper development workshop with guest editors from IJLM

March 25, 2026

## CARISCA Training Series

Dealing with desk rejection and addressing reviewer comments

March 29 - 30, 2026

## African Supply Network - Research Accelerator

Second meeting in Cairo, Egypt

To learn more about and register for CARISCA events,  
go to [carisca.knust.edu.gh/events](http://carisca.knust.edu.gh/events)

# Partner Spotlight

## Consolidated Shipping Agencies Ltd

**Conship**

We at CARISCA celebrate Conship for their continued collaboration and congratulate them on their 30th anniversary.

