

CARISCAREPORT

Center for Applied Research and Innovation in Supply Chain – Africa

2024 • ISSUE 10



Supply Chain Business Forum and Exhibition

Navigating the Future of Supply Chains in Africa

July 29–30 | Accra, Ghana

The World Trade Center in Accra, Ghana, will be the place to be **July 29–30** as we launch the inaugural **Supply Chain Business Forum and Exhibition**. The event will bring together industry experts, business leaders and academic researchers around the theme “Navigating the Future of Supply Chains in Africa.”

The goal of the forum is to enhance supply chain management practices across the continent. More than 150 people already have registered to attend.

The Business Forum will feature prominent African, European and U.S. entrepreneurs and business executives as keynote speakers, panelists and session leaders. The event also will offer time for networking and exploring the exhibition space, where leading companies will showcase their products and services.

Attendees will gain abundant opportunities to learn about and discuss the best supply chain practices throughout

Africa and how leading-edge university research can support African businesses.

Program

Among the event’s keynote speakers will be Starbucks executive and native Ghanaian **Ruby Amegah**. She leads global food product research and development for the world’s largest coffee chain.

Amegah will talk about “The Odyssey of Coffee and Cocoa Beans – From African Soil to Global Cup.” Following her presentation will be a panel discussion on supply chain traceability in the cocoa and coffee sectors.



▲ **Ruby Amegah**

continued on next page ►



▲ Dr. Chibuzo Opara

Commodity Security and Resilience.” A panel discussion on supply chain traceability in the health sector will follow his keynote address.

Patricia Poku Diaby, CEO of Plot Enterprise (Gh) Ltd, will be the third keynote speaker. As the only woman in Africa to have established a large-sized cocoa processing facility, she will speak on “Advancing the Cocoa Sector Supply Chain: A Processor’s Perspective.”

In addition, the forum will feature presentations on the **Ghana Logistics Managers Index (LMI)** and the **African Continental Free Trade Area (AfCFTA)**. The LMI is a tool CARISCA created in 2022 to support business

Nigerian healthcare entrepreneur **Dr. Chibuzo Opara** will also be a keynote speaker. As co-founder and CEO of DrugStoc, he is focused on eliminating counterfeit and substandard drugs in emerging markets.

A health economist with a clinical background, Opara will talk about “Building Patient-Centered Supply Chains for Health



▲ Patricia Poku Diaby

decision makers. The quarterly index is a predictive indicator of the overall Ghanaian economy. (See page 3.)

AfCFTA is an agreement signed in 2019 to create an action plan for boosting intra-African trade. Representatives from the African Union will talk at the Business Forum about the plan’s status.

Rounding out the program will be a session on “Sustaining Supply Chains in Africa: Successes and Challenges.”

Andre Kreie from the Kühne Foundation, based in Switzerland, will lead this session. Kreie leads the foundation’s education unit, which addresses capacity building in middle- and low-income countries related to logistics, supply chain management, leadership and strategy.



▲ Andre Kreie

Supporters

In addition to USAID, which funds CARISCA, corporate sponsors and partners are helping to make this event possible. **Conship**, or Consolidated Shipping Agencies, is our inaugural gold sponsor. Silver sponsors confirmed to date are **Interplast**, West Africa’s leading producer of plastic pipe systems, and logistics company **M&M air sea cargo GmbH**.

Promotional partners for the event include **Business and Financial Times** and **AfCFTA**.



REGISTER

Visit link below to register for the event or learn more about becoming a sponsor or exhibitor. Registration is free, but seats are limited.

CARISCABusinessForum.com

GHANA LOGISTICS MANAGERS INDEX FOR Q1-2024 SHOWS CONTINUED SLOW GROWTH

Ghana remains stuck in “slow growth” mode, according to the latest Logistics Managers Index (LMI) report, covering the first quarter of 2024. The overall LMI value hit an all-time low of 62.4.

Regardless, the score still reflects an expansion, as has been the case every quarter since the LMI’s inception in March 2022. Any score above 50 indicates that logistics activities are expanding. A reading below 50 would reflect a contraction.

The LMI summarizes the survey responses of supply chain and operations managers from multiple industries in Ghana. CARISCA researchers collected data for the first quarter report from January to March 2024 from 373 respondents.

“These first-quarter 2024 results continue to reveal the predictive nature of the LMI in relation to the economy of Ghana as a whole,” says Emmanuel Quansah, lead author and a member of CARISCA’s research faculty. “This is the fourth consecutive quarter where we have seen a slowing of logistics growth.”

All eight metrics studied were in the growth category. However, all metrics except one (inventory costs) reflected slower growth than in the previous quarter.

“Inflation picked up again in March after dropping in December 2023,” notes Quansah. “The cedi’s poor trading against key international currencies also exacerbates the situation, resulting in a high cost of doing business and slowing down of the economy.”

More details about the latest LMI report and plans to replicate it in other African countries will be shared at both the Supply Chain Research Summit in June and the Business Forum in July.

Through surveys of logistics managers, the LMI measures the quarterly growth or decline of Ghana’s logistics industry based on **eight key components**:



Inventory levels



Inventory costs



Warehousing capacity



Warehousing utilization



Warehousing prices



Transportation capacity



Transportation utilization



Transportation prices

Key findings from the Q1 2024 report include:

Aggregate logistics costs dropped for the sixth consecutive quarter, to the lowest value since the LMI’s inception.

Even though the **transportation price** metric recorded an all-time low, respondents were of the view that the cost of transportation is still high.

Organizations seem to have deviated from the normal trend of restocking after the December holidays, leading to a slump of growth in **inventory levels**.

The **Electronic Payment System Index (EPI)** crossed the 70 mark for the third time. Expectations are for use of electronic payments within the logistics sector to grow steadily as fintech receives broader adoption.

Survey respondents are **slightly more optimistic** than they were last quarter about growth in logistics activities and the Ghanaian economy in general over the next 12 months.

To download the full LMI report or past reports, go to carisca.knust.edu.gh/lmi

Senior executives and managers of Ghanaian organizations are invited to participate in the next quarterly LMI survey by visiting surveymonkey.com/r/Q2-24-LMI



CARISCA'S
2024 SUPPLY CHAIN RESEARCH SUMMIT

June 4–6 📍 Accra, Ghana

Africa's Supply Chain Resilience for Economic Transformation

JOIN US FOR THE 2024 SUPPLY CHAIN RESEARCH SUMMIT IN ACCRA, GHANA, JUNE 4-6

CARISCA's fourth annual Supply Chain Research Summit kicks off June 4, 2024, in Accra, Ghana. The theme of this year's conference is "Africa's Supply Chain Resilience for Economic Transformation."

The summit is central to CARISCA's goal to integrate Africa's supply chain research into mainstream research and strengthen African supply chain capacity. It is the largest academic supply chain conference on the continent.

"The summit is a can't-miss event for supply chain management scholars from Africa and around the world," says Dale Rogers, CARISCA's executive director. "In only a few years, it has become *the* place where new research ideas relevant to Africa are developed and presented."

A record number of supply chain scholars, students, practitioners and policymakers submitted papers for delivery at the summit this year.

In addition to these presentations, the conference will feature three keynote speakers, a journal editors panel, a women's panel, a session on the Ghana Logistics Managers Index, the PhD Dissertation Awards competition, and much more.

The conference will once again be presented in a hybrid format. The in-person venue is the Kempinski Hotel Gold Coast City, a luxury five-star hotel in the downtown business district. In-person registration is already at capacity, but you can still register to attend virtually.

Learn more and register at carisca.knust.edu.gh/summit2024 

Meet the keynote speakers

June 4

LYDIAH KIBURU



Lydia Kiburu directs business transformation, brand and culture for Equity Group Holdings, named last year as the fourth strongest banking brand in the world. She brings to this role a robust background in strategy development, business/digital transformation, strategic leadership, stakeholder engagement, consumer behavior analysis and communications.

**"Leveraging Technology and Innovation to Build Resilient Supply Chains in Africa"**

Kiburu holds degrees in information science and international development and diplomacy. She also is an alumna of the Strathmore University PhD program in business and management.

Through training programs and serving on several boards in the international development sector, Kiburu has gained a wealth of experience in governance and oversight as well. Among her passions are youth development, consumer technology adoption and community empowerment.

June 5

GLENN RICHEY



Robert Glenn Richey Jr. is a prominent figure in the field of supply chain management. Serving as the Harbert Eminent Scholar in Supply Chain Management at Auburn University, he has made significant contributions to the academic and practical aspects of the discipline.

**"Responsiveness, Organizational Learning and AI: The Future of Supply Chain Strategy"**

Richey is also known for his dedication to building robust research collaborations and fostering meaningful relationships between academia and industry practitioners. This dedication is reflected in his active engagement in creating opportunities for students to connect with the real-world applications of their studies.

**"Harmonise Policies, Leverage Heritage: How Can Africa Drive Resilient Supply Chains?"**

As the co-editor-in-chief of the Journal of Business Logistics, Richey is deeply involved in advancing the research and understanding of logistics and supply chain management. His work is characterized by a strong emphasis on industry-based research, particularly in the realms of supply chain and international business.

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June 6

FAITH MASHELE



Faith Mashele teaches in the areas of sustainable supply chains and operations management at the University of Pretoria's Gordon Institute of Business Science. She also is a fellow of the school's Centre for African Management and Markets.

**"Harmonise Policies, Leverage Heritage: How Can Africa Drive Resilient Supply Chains?"**

In addition to her academic career, she has extensive corporate experience. Mashele has held diverse roles in both the public and private sector, spanning the banking, consulting, development finance, education and information technology industries.

Known as a procurement ninja, she has been widely recognized as one of the leading women in the field. She is a fellow of the Chartered Institute of Procurement and Supply (CIPS) and former head of the Procurement Centre of Excellence for Nedbank.

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FISH AND CHICKEN STUDY EARNS 2023 PHD DISSERTATION AWARD



“Fish and chicken” is a nickname that may follow **David Antwi** for the entirety of his career. But he is OK with that.

He has a ready comeback for fellow Kwame Nkrumah University of Science and Technology students and faculty who call him “fish and chicken professor.”

“By the end of the day,” he tells them, “you are likely to have eaten one or both proteins.” Research shows, after all, that Ghanaians consume a lot more fish and chicken on average than people in other African countries or elsewhere in the world.

Antwi also could point out that the likelihood of their contracting food poisoning may be reduced thanks to his decision to make fish and chicken the focus of his doctoral research.

Or he could remind them that his thesis happened to earn him recognition as CARISCA’s PhD Dissertation Award winner last year. His winning dissertation is titled “Human Capital, Cold Chain Logistics Performance and Food Losses.”

Antwi’s interest in studying food loss stems in part from his long-ago stint as a cargo truck driver, carrying goods from all over the country.

“As a cargo truck driver, there were instances when I encountered products getting expired along the journey due to temperature abuse,” he says. “And what that meant was that the aggregator who was supposed to buy and have it sold at the marketplace wouldn’t be able to do that.

“So the aggregators would not be able to get money, the farmer would not be able to get money, and sometimes the truck drivers would be affected too.”

Where do we eat?

Rampant media reports on food poisoning linked to the consumption of frozen fish and chicken products also stoked Antwi’s interest in the problem. Roughly 90,000 Ghanaians die each year from food poisoning, and around 14% of all hospital admissions are for foodborne illnesses.

“High-class restaurants are registering food poisoning, wayside food vendors are registering food poisoning,

households are registering food poisoning,” observes Antwi. “So it’s an issue. Where do we eat?”

While undertaking his research study, Antwi observed operations at Tema Fishing Harbor and Asafo Market in Kumasi. He says what he saw there helps explain why food poisoning is so prevalent.

“Sometimes I would just go park, walk around and look at how the business is conducted,” recalls Antwi. “Clearly, the actors are not on top of the business. That is why their actions are leading to massive food losses and poisoning.”

Antwi says he witnessed sellers taking food from the fridge, exposing it to the sun all day at the market and then returning it to the refrigerator in the evening to sell the next day. He asked one woman if she disposes of the food she hasn’t sold.

“She said, ‘No, we just smoke it when it goes bad,’” Antwi exclaims. “So they change the form. They smoke it, they grill it, and sometimes they fry it. And that makes the risk quite serious because you can’t tell if the product is bad,” he adds.

Even when it is noticeably off, consumers still purchase it, Antwi learned. That was the biggest surprise of his research.

“You see the product has gone bad, and the people will buy it because it’s a reduced price,” he says. “That was the surprising thing, because they see the quality is so, so bad. And the people are buying it because, in Ghana, eating chicken, we deem it a privilege. So it doesn’t matter the state to most people.”

We are all at risk

Antwi felt compelled to determine the root causes of the problem and find a solution. For his doctoral dissertation, he studied the actors in the temperature-sensitive food industries in Ghana, specifically licensed cold-storage facilities.

“It is either we help to reduce the losses or we go to join our ancestors untimely.”

He surveyed almost 300 importers, distributors, wholesalers and retailers in four regions of the country. He looked at the relationships among three factors: human capital (workers), refrigerated transportation performance (maintaining proper temperatures during transport), and cold-storage facility performance (maintaining proper temperatures during storage).

What he found is that all three factors are critical. The importance of prioritizing workforce development in the fight against food loss cannot be overstated, he noted. But improving either transportation or storage processes is insufficient. Both must be improved to make a difference.

“To reduce food loss effectively,” Antwi says, “businesses should invest in firm-specific skilled personnel, maintain high-quality transport and storage infrastructure, and encourage cooperation among participants in the supply chain.”

He hopes to use this knowledge both to educate future generations as a university professor and to bring about practical changes within the frozen-food supply chain. Antwi believes the reason he won the PhD Dissertation Award is because his research addresses a real problem.

“I had a lot of challenges with respect to my topic,” he says. “But I foresaw that it was going to be used to solve a question.

“It’s a must that we pull resources together to help reduce the quantity of food loss. Because whether contaminated food is consumed or destroyed, it affects either humanity, the environment or both.

“We are all at risk,” Antwi warns. “It is either we help to reduce the losses or we go to join our ancestors untimely.”

STAY CONNECTED

To learn more and receive project updates and information about upcoming events, please visit CARISCA’s project website and sign up for our newsletter:

research.wpcarey.asu.edu/carisca/mailling-list

CONNECTING AFRICAN RESEARCHERS TO ADDRESS LOCAL SUPPLY CHAIN CHALLENGES



Researchers from seven African countries convene for the inaugural Africa Supply Network Research Accelerator meeting

CARISCA is committed to strengthening the capacity of African researchers, fostering networks, and promoting research addressing local challenges and producing locally relevant solutions.

In February, CARISCA hosted its inaugural **Africa Supply Network Research Accelerator (ASN-RA) meeting**. The meeting was inspired by Arizona State University's [Complex Adaptive Supply Networks Research Accelerator \(CASN-RA\)](#), which involves 140 scholars from 25 U.S. states and 18 countries.

Both events act as research accelerators by creating opportunities for scholars interested in supply networks to forge new teams to pursue interesting and challenging research projects. To date, CASN-RA teams have published at least 30 papers in some of the fields' top journals.

"I think of ASN-RA as a think tank of young leading researchers in Africa that will push the leading edge of

thinking in our field," says **Thomas Choi**, CASN-RA co-director and CARISCA senior technical advisor.

Held in Accra, Ghana, the ASN-RA meeting brought together 21 scholars from seven African nations. The meeting's objective was to refine research ideas into prominent topics and facilitate the development of manuscripts, articles and research proposals.

"I consider this group as the ones who will shape the future of research and teaching in African higher education," added Choi.

The two-day meeting featured brainstorming sessions, breakout discussions and presentations. These provided a platform for scholars to connect, share knowledge and collaborate on supply chain issues specific to Africa.

"We have put this network together for African scholars to be able to look at local issues, local problems, and bring rigorous research into solving

these problems," says Adegoke Oke, a CARISCA senior technical advisor who co-led the meeting with Choi.

Following brainstorming sessions, six teams formed to work on research projects for future publication.

"We came up with several research ideas and believe that a lot of issues in the supply chain, especially in the context of Africa, are going to be addressed," said participant Usman Abbas, a lecturer at Kaduna State University in Nigeria.

The six research topics are:

- ♦ Family financing's role in African supply chains
- ♦ Legacy systems and child labor
- ♦ Regulatory and institutional influences on horizontal trade
- ♦ Scalability in African supply chain relationships
- ♦ SME supply culture and resistance to development
- ♦ The informal sector's role in omnichannel distribution

"The intention is to hold this meeting every two years," says Oke. "We look forward to building the capacity of African researchers through this research network."

The next ASN-RA meeting is planned for 2026. In the meantime, participants will meet periodically in teams to

work on publishing on the research topics in top-ranking journals.

"I enjoyed the workshop and the insights from the African continent," said participant Mona Ali, an assistant professor at The German University of Cairo. "It is really interesting to get to know and work with each other."

After the ASN-RA meeting, Choi, author of the book "The Nature of Supply Networks," spent a week at KNUST. During his scientific visit, he engaged with faculty and students from the KNUST School of Business in a workshop centered on his book.

(Read more about Choi on page 10.)

Watch a video on the ASN-RA meeting:

bit.ly/ASN-RAvideo

Photos by Deduce Photography

1. From left to right: **Alfred Salwa** (Mzumbe University, Tanzania), **Bonny Bagenda** (Makerere University, Uganda), **Assilah Agigi** (University of Pretoria, South Africa) and **Mona Ali** (German University in Cairo, Egypt) present their research theme to participants
2. From left to right: **Thomas Choi** (CARISCA STA) guides **Joseph Onyango** (Strathmore University, Kenya) and **Benjamin Agyei-Owusu** (KNUST, Ghana) during the brainstorming session
3. **Adegoke Oke** (CARISCA STA) in discussion with (from left to right) **Bonny Bagenda** (Makerere University, Uganda), **Mona Ali** (German University in Cairo, Egypt), **Assilah Agigi** (University of Pretoria, South Africa) and **Alfred Salwa** (Mzumbe University, Tanzania)



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- 4. **Busha Kiteessa** (Addis Ababa University, Ethiopia) presents a research paper on behalf of his group members **Usman Abbas** (Kaduna State University, Nigeria) and **Esther Nandara** (GIMPA, Ghana)
- 5. **Felix Mogesa** (Strathmore University, Kenya) answers a question during the Q&A session
- 6. **Esther Nandara** (GIMPA, Ghana) interacts with group member **Usman Abbas** (Kaduna State University, Nigeria)



CARISCA is fortunate to have several highly recognized supply chain scholars leading the project. One of our senior technical advisors based at Arizona State University, **Thomas Choi**, has even been ranked as the No. 1 supply chain management researcher in the world.

Choi is considered the founder of the field of complex adaptive supply networks, which he likens to the way birds flock together without any bird telling them how they are supposed to fly. [\(See video\)](#) Over the span of his stellar career, Choi has been cited nearly 25,000 times.

In February, shortly after returning from a scientific visit to Ghana, Choi added the title Arizona State University Regents Professor to his many accolades. It is the highest faculty honor ASU confers.

The title is given only to a select number of full professors who have made remarkable achievements that have received national attention and international renown. Less than 3% of ASU's faculty hold the distinction.

"I am happy for myself, but at the same time I'm happy for my field," Choi says about the honor. "We are a young field and just starting to emerge. To see supply chain management next to English, anthropology and planetary science is a real honor."

Despite all his success as a researcher, Choi says his passion for teaching came first.

"Korean culture puts a high value on those that impart knowledge," says Choi, who grew up in Busan, South Korea, before moving to the U.S. as a teenager. "I was always interested in being a pastor or a teacher."

"I taught at Sunday school and really enjoyed it," he adds. "I eventually went to school to get my PhD because I wanted to teach. Research was an acquired taste for me."

Although Choi enjoys teaching, he demands a lot from students.

"Drive and initiative are everything," he says. "From my experience mentoring students, the driven student's career will beat the smart student's every time."



Photo by Publicity GH Live Media Limited

NEW PHDS SET TO CHANGE FUTURE OF AFRICA'S SUPPLY CHAINS

Seventeen newly minted doctors of philosophy in business and management celebrated their graduation from KNUST in March thanks to the support of CARISCA scholarships. The group is among the first cohort of students who received funding from CARISCA starting in 2021 to pursue doctoral studies in logistics and supply chain management.

The 17 CARISCA Scholars made up 68% of all the students who earned a PhD from the KNUST School of Business at the March congregation. It was the largest class of graduates in the business school's history.

Two additional students from the same cohort expect to complete their degrees this fall.

"CARISCA played a pivotal role in my educational journey through their funding and nurturing," says Isaac Apike, one of the recent PhD graduates. "I am deeply thankful for the enlightening seminars led

by esteemed professors such as Nat Boso, Goke Oke, Dale Rogers and Thomas Choi."

In a survey of the 17 graduating CARISCA Scholars following their thesis defense, 14 (82%) said they are currently employed. Twelve are employed full-time, and two have part-time jobs.

Eight of the graduates hold positions in higher education, three are supply chain management professionals, one is a research policy analyst for the parliament, and another is an entrepreneur. One of the graduates chairs the Kumasi section of the Chartered Institute of Logistics and Transport's (CILT) Ghana branch.

"Thank you so much to CARISCA, USAID, KNUST and ASU for the invaluable opportunity given us to change the future of Africa's supply chains through research," says Jennifer Monny, another March PhD graduate. "This is just the beginning."



DEFENDING YOUR THESIS AT VIVA

A thesis defense is a pivotal moment for doctoral candidates. It carries immense significance and is often associated with anxiety and subpar performance.

But doctoral candidates must learn how to navigate this critical stage. A successful thesis defense not only signifies academic achievement but also prepares students for the challenges of academia and beyond.

In an increasingly competitive academic landscape, the ability to effectively present and defend one's work is a critical skill that can greatly impact a researcher's career trajectory.

On Dec. 8, 2023, CARISCA Director **Nathaniel Boso** and research faculty member **Dominic Essuman** presented a webinar to help students prepare for their thesis defense. The focus was on guiding doctoral candidates in effectively preparing for and defending their research while also positioning themselves competitively within academia and beyond.



▲ **Nathaniel Boso**



▲ **Dominic Essuman**

The event was part of the CARISCA Training Series, which aims to boost the research capacity of KNUST and other African scholars.

The training covered three primary topics:

- 1. Designing an effective thesis presentation
- 2. Delivering a quality thesis presentation
- 3. Preparing for and managing the thesis Q&A session

Essuman, a former PhD student of Boso's who is now a lecturer at the University of Sheffield in the U.K., kicked off the session. He introduced various presentation styles adaptable for communicating different facets of a PhD thesis. He provided practical tips applicable to each phase before, during and after the thesis presentation.

Boso then employed examples to illustrate how participants could transform their research into a compelling narrative. He shared practical guidelines for achieving this goal and then guided participants through typical PhD viva questions, detailing approaches for addressing each question effectively.

Following are key takeaways from the training:

Ensuring effective communication

Choose and combine presentation styles to best communicate different aspects of the work and captivate your audience. For example, a “persuasive” style involving storytelling and reference to important cases and examples can help convince the examiners why your research matters.

On the other hand, “demonstrative” style will suffice while explaining your conceptual model and its underlying logic. Employ the “informative” style to show in-depth knowledge of your research.

Regardless of the style, your presentation should not involve too many details. Keep in mind that the examiners have already reviewed your written thesis.

Use slides to illustrate your major points, not to duplicate what you plan to say. The slides should contain minimal text. Consider using appropriate visuals such as images and short videos. Avoid reading the slide titles, and find a smooth way to transition between slides.

Preparing for the presentation

Master your materials so you can demonstrate a deep understanding of your research. This will help you demonstrate that you have earned the right to hold a doctor of philosophy degree in your field.

If you know who your examiners are, be familiar with their research background. Understand their philosophical perspective, methodological approaches, and their research outputs that relate to your work.

Think about and prepare for potential questions. See some examples in the sidebar to the right. ▶

Be yourself. Don't attempt to mimic someone else's presentation style or to memorize your talk. You want to come across as natural and confident.

Rehearse, rehearse, rehearse! Be aware of your timing, tone and body language.

Some typical questions to prepare for in the Q&A:

- ✓ **In one sentence, what is your thesis about?**
- ✓ **Why did you choose theory X and not other theoretical lenses?**
- ✓ **What's original about your work? Where is the novelty?**
- ✓ **Why did you choose the research method you used?**
- ✓ **Can you summarize your key findings in one sentence?**
- ✓ **How does your thesis contribute to knowledge?**
- ✓ **What are the strongest/weakest parts of your work?**

What to do during the presentation

Take your time. Don't speak too fast or too slow. A moderate pace is best.

Use open, friendly body language, and use your hands to help illustrate your points.

Engage your audience by making eye contact and incorporating stories and audiovisual elements into your presentation.

Speak clearly and confidently. Avoid filling pauses with “umm” and “err” or talking as if you are in a classroom setting.

Handling the Q&A session after the presentation

Thank your audience and acknowledge their questions and feedback.

Always be respectful and considerate while answering questions. Don't be defensive or confrontational in your responses. Maintain a positive and receptive attitude.

Don't avoid questions. Attempt to answer them if you can. If you can't answer a question during the presentation, be sure to follow up with a response afterward.

Use questions and feedback as an opportunity to learn and further develop your research.

Telling Your Story

The audience wants to hear a clear storyline, right from the beginning of the presentation to the end. So, take the audience on a journey to understand and appreciate the story behind your research.

Imagine yourself as a novelist, telling children about an interesting scientific story. Avoid technical terms and jargon.

Make the dependent variable in your research the beginning of your storyline. Get your audience to understand how the dependent variable is important. Then explain the problem with the way that variable has been studied before.

Afterward, take your audience on a journey from the problem point to a place where that problem is being addressed adequately by your research. What matters most is communicating the importance of your research, the importance of the problem and the contribution that you're making.

I DISTINGUISHED LECTURE SERIES

Four times a year, CARISCA invites top supply chain scholars and leaders to deliver presentations. These Distinguished Lectures give faculty and students access to inspiring role models, the latest ideas and approaches in supply chain research, and practical guidance for conducting and publishing research.

Today’s research is tomorrow’s innovation

The African continent boasts many riches: 60% of the world’s arable lands, 30% of the mineral reserves and a young population. But it also shoulders 25% of the global disease burden and accounts for only 3% of global GDP, according to a 2022 Brookings report.

When it comes to research and innovation, the stats are even more dire. Africa accounts for only 2% of the world’s research output, 1.3% of research spending and only .1% of all patents, as of 2022.

Among those trying to change such statistics is **Marcia Mkansi**, a professor of operations and supply chain management at the University of South Africa. In her Feb. 15 Distinguished Lecture, Mkansi talked about increasing research-based innovation across the continent.

“The question is, what is the position of the university and academics in this whole situation?” Mkansi asked. “How do we reposition ourselves in such a manner that we play a more transformational role in reducing the burden of disease, unemployment and poverty in Africa?”

In her talk, Mkansi highlighted the deep disparity between research outputs and innovations in Africa. She said in 2019 alone, an aggregate of 26 public universities in South Africa produced more than 17,000 research outputs that were accredited and approved by the Department of Higher Education. In comparison, those same universities produced only 145 innovations that year.

“If you compare what we produce in terms of research versus innovations, it is extremely low,” said Mkansi.

Universities can help address the imbalance through policy changes related to intellectual property and reduced workloads, she noted. But scholars need not wait on changes at the university level to translate their research passions into innovations.

From PhD thesis to small startup

A prolific innovator herself, Mkansi shared her personal experiences in advancing research-based innovation and empowering graduate students to be the creators of tomorrow. Whether at an individual or organizational level, innovations can generate new income streams through grants and licensing deals, she noted.

“When you pursue innovative projects, you can apply for attractive grants that can help you measure the impact,” she said. “For a university, it can be licensed to companies, therefore creating new jobs and new avenues of creating income and building wealth for the country.”

One of the innovative initiatives Mkansi has spearheaded is the development of software to facilitate efficient delivery of malaria drugs. Malaria has been prevalent in Africa for decades and accounts for hundreds of thousands of deaths annually.

“We have the drugs,” Mkansi said. “The challenge is access to that medicine.”

A clinic in one rural village may have an overstock, she explained, while the clinic in the next village is understocked. But existing systems for tracking the availability of the drugs



▲ **Marcia Mkansi**

are expensive. If the clinics can’t afford the tracking system, the understocked clinic won’t know to send patients to the overstocked clinic in the next village.

Collaborating with one of her PhD students from Uganda, Mkansi conducted a four-year study on supply chain coordination for an antimalarial drug. She then developed a flowchart based on the study findings and created a prototype mobile app that records, monitors and updates stock levels.

The app has attracted interest from a business that manufactures antimalarial products, African Applied Chemicals. This industry partner is now seeking a license with the World Health Organization to supply the mobile app throughout Africa.

“And the interesting thing is, this small startup comes from a university, comes from somebody who just finished his PhD,” said Mkansi. “So, you can see things starting to happen.”

“ Let your research be the innovation that Africa and the world needs tomorrow.”

“We have not yet changed the entirety of Africa, but we can see significant milestones in what we have started so far.”

A research philosophy app

Mkansi also highlighted the **Research Methods Index** software as another innovation product she has developed. This one came from her own experience as a doctoral student.

She realized that her fellow students struggled to understand research paradigms and philosophy and how they shape research methods. So she created a “match-making” assessment tool for scholars.

The tool helps students choose an appropriate research method for their dissertation. It can also match them with a supervisor who shares their philosophy.

Mkansi won a multimillion grant to develop the app and recruited software engineers to work with a team of students on the project. The

software has attracted interest well beyond academia.

“We have been contacted by psychologists who want to use this for marriage evaluation counseling, and some want to use it for dating,” said Mkansi. “Some want to use it to help understand conflict resolution. That is way beyond what we initially conceptualized.”

The key to becoming an innovator, Mkansi noted, is to go beyond conducting a research study and publishing the output.

“You go further to say, ‘Based on the challenge that I’ve observed, what solution can work? Instead of recommending the solution, what can I do to help resolve this problem that I’ve seen on the ground?’”

Mkansi created two other innovations based on her PhD thesis. One is an

app that enables efficient delivery of online grocery orders using drivers already on the road. The other

one grants carbon credits to users based on their sustainable choice of transportation and then allows them to sell those credits or use them for a tax credit.

“That’s just one example of how we are using research to contribute toward these major challenges,” said Mkansi.

Not all innovations are technology-based, Mkansi pointed out. She cited the example of a friend who created products made with mopani, an edible worm she harvested and ate during her childhood in a small South African Limpopo village.

“That is an example of how innovation doesn’t have to be a mobile application,” Mkansi said. “It could be anything from food to paintings to the things we take for granted. Let your research be the innovation that Africa and the world needs tomorrow.”



I CARISCA SHARES LEARNINGS

CARISCA is a learning project, which means that its work is used to inform USAID’s future capacity-strengthening programming for higher education institutions in low- and middle-income countries.

To this end, USAID encourages its projects to share their successes and lessons learned with others in the higher education development space. In one example of how CARISCA is sharing its learnings, see CARISCA’s recent blog, “Three Ways to Strengthen Capacity in Higher

Education Development Projects,” which is now posted on USAID’s **Educationlinks website**.

The blog highlights how CARISCA has created a strong organizational culture, developed local ownership of the project and its goals, and empowered an inclusive leadership style. All these efforts support **ASU’s charter** of measuring global success by who is included and how they succeed.

CARISCA'S UPCOMING EVENTS

May 22	Distinguished Lecture Series "Building a Future-Ready Supply Chain Industry"
June 3	Pre-Summit Paper Development Workshop
June 4–6	2024 Supply Chain Research Summit
June 19–20	Faculty Workshop Computational Modeling
July 11	Inclusion in Supply Chain Training & Networking Series "Creating and Implementing Policy Changes Across Supply Chains"
July 18	Distinguished Lecture Series "The Role of Mobile Resources in Access to Healthcare in Underserved Communities"
July 29–30	Supply Chain Business Forum and Exhibition
Aug. 5–6	Continuing Professional Development Course Supply Chain Analytics

To learn more about and register for CARISCA events,
go to carisca.knust.edu.gh/events ➡

This newsletter is made possible by the support of the American people through the United States Agency for International Development (USAID). The contents of this newsletter are the sole responsibility of the CARISCA project at Arizona State University and do not necessarily reflect the views of USAID or the United States Government.

CARISCA is supported through USAID's Innovation, Technology and Research Hub in the Bureau for Inclusive Growth, Partnerships, and Innovations. The award is part of the Building Research and Innovation for Development: Generating Evidence and Training (BRIDGE-Train) portfolio.

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