

# CARISCA REPORT

CENTER FOR APPLIED RESEARCH AND INNOVATION IN SUPPLY CHAIN – AFRICA

| 2021 • ISSUE 2



Photo by Marleena Garris on Unsplash

## The Logistics of Transformation

A college degree is a dream for students all over the world because it can lead to more opportunities and a better life for graduates and their families. In 2019, 17% of Ghanaian students pursued education beyond high school.<sup>1</sup> Many students do not attend, or complete, college because they are unable to afford it. In light of this, the CARISCA project, funded by the United States Agency for International Development, is providing scholarships to Ghanaian students to further their education.

In February 2021, CARISCA awarded 21 PhD and 45 master's degree scholarships to Ghanaian students with financial need to study the critical discipline of supply chain management at KNUST.

These awards more than doubled the number of PhD students in KNUST's Supply Chain Department, which will greatly impact the quality and quantity of the KNUST School of Business's locally relevant academic and applied research.

"The impact of these awards not only advances research, but it increases the visibility of the KNUST School of Business and its ability to establish and foster research partnerships with the private sector so that it can get closer to CARISCA's mission of delivering quality

services to the people of Ghana," said CARISCA's director of operations, Robert Abaidoo.

This large-scale investment is a significant step towards solidifying CARISCA as a knowledge hub for supply chain management (SCM) in Africa.

### CARISCA is actively working to:

1. Establish KNUST as Africa's preeminent source of supply chain management expertise;
2. Serve as a resource for researchers in Ghana and across Africa to drive innovation, research, knowledge translation through the application of research findings, and training to improve African supply chains, sustained by revenue-generating activities and a robust partner network;
3. Create the SCM professionals and research that significantly improves the efficiency and effectiveness of health and agricultural supply chains; and
4. Increase inclusion and impact for women and disadvantaged supply chain practitioners.

1. See <http://uis.unesco.org/en/country/gh>, Participation in Education.

## LAST-MILE DELIVERY: STORIES FROM THE FIELD

### Funding Curiosity

#### USAID Scholarships Will Catalyze Students Like Evans to Improve Supply Chains

*“CARISCA is not just another grant, it is an opportunity to support and develop individuals like myself to make relevant and impactful contributions to society.” — Evans Amoah, PhD scholarship recipient at KNUST*

Evans Amoah is one of the recipients of CARISCA's PhD scholarships, and over the next several years he will have the opportunity to study what he has always been curious and passionate about, information communication technology (ICT), and how it impacts the lives of people and society.

In a recent interview, Amoah said that his father was a single parent when he was growing up and that he not only took care of Amoah and his siblings but his nieces and nephews as well.

“My father is a kind-hearted man who tries to help anyone in need in any possible way. He was seen as an individual with a so-called prestigious job [university staff], but he was burdened with a lot of financial problems from our extended family. We had to sacrifice a lot of things to help him juggle his finances.”

Despite the financial challenges and the burden of additional school fees, his father valued education and was convinced that his children would have a good head start in life if they stayed in school.



*Amoah in his school uniform in Prempeh College (Photo courtesy of Evans Amoah)*

“It was even harder during my postgraduate education because all my siblings were also in school at the same time. I even thought of deferring my coursework to find a good job to at least support my dad.”

At age 14, Amoah's father bought him his first computer.

“I remember tearing up my PC to see if it would function without a particular component and then I'd put them back again. I seriously fell in love with computers as well as software programs and games. My Auntie gave me lots of opportunities, she allowed me to explore her computer too and was the first person to teach me how to type. She believed in my abilities on the use of the computer at such a young age,” said Amoah.

His technological experiments, ability to teach himself new things, and support from this family enabled him to quickly move to the top of his class in school.

Amoah's secondary school, Prempeh College, did not offer an ICT degree, so he studied business and spent a lot of time in the ICT laboratory learning about how to develop websites and web applications.



*Evans Amoah (right) with his siblings (Photo courtesy of Evans Amoah)*



Amoah was accepted to KNUST for his undergraduate degree, and he studied business administration with an emphasis in information technology. He was not only a good student but also enjoyed teaching his fellow students.

"I loved to share my knowledge with my friends and colleagues. In my final year, I gladly accepted to hold tutorial sessions for continuing Business Information Technology students. I felt a sense of satisfaction after every tutorial session."

At KNUST he also realized that he not only wanted to teach but to conduct academic research. His passion for ICT research propelled him to undertake several projects. In one of his most successful projects, he led a team of IT experts to host the Academy of International Business African Chapter Conference in 2019. While studying, he also managed to work to make money and volunteered for various causes.

After his undergraduate degree, Amoah earned a Master of Philosophy degree in Management Information Technology from KNUST.

Despite his success in higher education, he has always struggled to pay for school. Now, thanks to funding from USAID, he is a business and management doctoral student in the Department of Supply Chain and Information Systems at KNUST.



*Evans Amoah, left, with his father, right. (Photo courtesy of Evans Amoah)*

Amoah hopes to use his scholarship to learn more about digital innovations in supply chains so that he can bring about impactful research that can solve societal problems.

"My father never thought twice about helping others, I never understood why he was taking care of other people, but I guess it has rubbed off on me."

## Creating Cutting-Edge Supply Chain Curricula

After working with ASU faculty to conduct a collaborative evaluation of KNUST's supply chain course offerings, KNUST designed two new classes, four new master's programs, and an undergraduate program to meet the needs of increased specialization for Africa's 21st-century workforce.

**New classes:** The first class, Business Analytics, began in January and there are 278 students enrolled (46% female). The second class, Simulation Analysis in Supply Chain Management, is approved and will begin in the fall.

**New programs:** The supply chain department at KNUST recognized the need for additional programs and has designed five new programs for KNUST's supply chain students. These programs are being reviewed as part of the approval process and the goal is to launch these new programs in January 2022.

- MSc Business Analytics
- MSc Agricultural Supply Chain Management
- MSc. Pharmaceutical Supply Chain Management (for pharmacists and doctors)
- MSc Health Supply Chain Management (for all health professionals)
- BSc Pharmaceutical Supply Chain Management (for dispensing technicians)

# Working Together to Bring a New Vision for African Supply Chains to Life

Dear Colleagues:

We invite you to join us on a journey. A journey our team often refers to as making Stone Soup.

Stone Soup is a fable from 18th Century Europe that recounts how a traveler who had no food brought a community together during a famine to create a hearty and filling soup for all to share. He accomplished this feat by starting a soup with only a stone and inviting everyone in the community to contribute any food that they could.

We recognize and appreciate that CARISCA is only a stone, and we need a strong community to reach our goals.

In CARISCA's first year, we have:

- Awarded over 60 scholarships to master's and PhD students at KNUST;
- Created four new degree programs;
- Initiated 18 new research projects;
- Trained 360 participants at public events; and
- Assembled an international advisory board and partnership coordinating committee with over 60 business leaders and governmental and nonprofit executives from around the world.

We know this is only the beginning, and there is much to be done, but as we reflect on our progress so far, we want to acknowledge your contributions to our success.

Working together, we can create a sustainable educational model that empowers people to improve their lives, their communities, and their collective futures.

We cannot do it alone, and we look forward to your thoughts about how CARISCA can add value to supply chains in Africa.

Please join us on our journey to make Supply Chain Stone Soup.

Sincerely,

Dale Rogers and Nathaniel Boso



**Dale S. Rogers, PhD**

*Arizona State University, W. P. Carey School of Business*

*ON Semiconductor Professor of Business*

*Director, Frontier Economies Logistics Lab, Co-Director, Internet Edge Supply Chain Lab*

*Executive Director, Center for Applied Research and Innovation in Supply Chains – Africa*



**Nathaniel Boso, PhD**

*Kwame Nkrumah University of Science and Technology*

*Dean, KNUST School of Business*

*Director, Centre for Applied Research and Innovation in Supply Chains – Africa*





## Faculty Form Research Teams to Address Pressing Supply Chain Challenges

Tom Choi is one of the world's foremost supply chain scholars who has a history of leading rigorous research projects and supply chain conversations as a professor at Arizona State University's W. P. Carey School of Business.

As part of CARISCA's bi-annual faculty workshop, Choi led a three-hour workshop about case study research, which is a valuable research tool for testing and creating theories about how supply chains work.

The goal of the workshop was to strengthen the research capacity of KNUST School of Business (KSB) faculty and PhD candidates. Although the workshop was geared towards KNUST faculty, scholars from the American University in Cairo, Egypt, also attended and were engaged in the conversation.

The first day of the workshop consisted of five presentations about case study methods and real-life examples that led to publications in top-tier journals.

Choi mapped major supply chain networks of auto manufacturers for decades, and he believes that supply chains are complex adaptive systems that are similar to bird migration patterns.

"There is no central entity that coordinates activities, the birds fly in a way that is most comfortable to them. They obey local rules, and the pattern simply emerges, and that is how supply networks form. Every company is striving to maximize their own gains, and the pattern appears."

Choi emphasized the fact that case studies can be used to elaborate or test theories.

"Case studies may be used for exploratory purposes, in which case propositions actually emerge from the analysis of the cases, and it can be used for explanatory purposes as well," he said.

At the end of each presentation, participants asked informed questions such as how to properly determine sample sizes, develop theories, and inform academic discussions with research findings.

Choi recommended that faculty dive into the data.

"Don't be afraid to get dirty with data — the beauty of case studies is rich contextual information, and it's important to enjoy it and keep an open mind as one thing will lead to another."

Sound case study research will improve KNUST's ability to solve complex problems by better understanding the nuances of highly complex health and agricultural supply chains.

Choi reminded faculty that case studies "make you a better teacher because it opens you to new experiences with business and executives."

CARISCA's executive director, Dale Rogers, elaborated on this point, indicating that case study research is also beneficial for creating long-lasting research-industry relationships.

"Beyond research methodology benefits, case studies create strong relationship bonds between the researcher and the organization."

On the second day of the workshop, faculty formed six research teams to create one-year research projects that will address supply chain issues raised by stakeholders during CARISCA's past engagements. The research topics include: supply chain financing and digitization; transportation, inventory and warehousing; third party logistics (3PL); marketing and standardization; community supply chain network design; supply chain entrepreneurship; resilience and women and vulnerable groups.

The end goal of these research projects is to generate new knowledge that can inform supply chain practitioners, policy making, and new areas of research.



# GLOBAL SOURCING AND DISTRIBUTION

**A CARISCA Stakeholder Engagement**

**“When it comes to supply chains,  
all roads lead to Africa.”**

*Bindiya Vakil, CEO, Resilinc*

On April 28 and 29, 2021, supply chain researchers and practitioners gathered for a virtual forum to discuss global sourcing and distribution. The event's goal was to inform supply chain practitioners, academics, and the public about global sourcing and distribution issues and innovative practices for solving complex problems. The event hosted six subject matter experts from diverse supply chain sectors.

### DAY ONE

On the first day, **John Frederick Dadzie, Deputy Programme Manager, Expanded Programme of Immunisation (EPI) of Ghana Health Service, William Ofori, Lead Consultant, Chiron Health Consult and former Regional Director-West Africa AstraZeneca, and Bindia Vakil, CEO of Resilinc,** discussed the rollout of the COVID-19 vaccine in Ghana and opportunities for Africa to take the lead in manufacturing medications.

Ofori's presentation focused on the operational and logistical challenges in the rollout of COVID-19 vaccines in Africa. In addition to these identified challenges, Ofori stated that Africa has become over-dependent on COVAX (a joint venture to provide vaccinations to low- and middle-income countries), which may pose problems in the long run. He stressed how important it is for regulators, industry, and governments to work together to reach herd immunity, saying, "the world needs us, Africa can create vaccines for the world - none are safe until all are safe."

Even though many countries in Africa have received vaccines, there are still challenges with assurances that vaccines will arrive, temperature monitoring, global allocation, transportation, and logistics — especially in the cold chain.

Dadzie explains that "unless all these challenges are addressed, vaccines will not be supplied globally in an effective manner."

Vakil expressed optimism for Africa's future supply chains. "When it comes to supply chains, all roads lead to Africa, which is well-positioned to receive a significant investment."

Vakil added that even though supply chains have become fragile globally, Africa has the opportunity to position itself as the center of the world due to its vast resources.

Vakil also stressed the need for supply chain assurances, "supply chain is in the business of assurance, not cost savings and cost reduction."

### DAY TWO

On the second day, **Jamey Butcher, President and CEO of Chemonics, and Naa Adorkor Yawson, Zipline Ghana's Country Director,** highlighted their successes and challenges in strengthening supply chains in Ghana and around the world.

"Our goal at Chemonics is to put ourselves out of business," said Butcher as he described how the organization's most successful work has been in countries where they no longer operate.

"We have 14 multidisciplinary practices that are aligned with the Sustainable Development Goals, and we work to support the priorities of the people where we work. We build and operate supply chains, and then we work with our counterparts to hand over operations to the communities we work with."

Due to the massive fluctuations in supply chains within the past year, Chemonics set up an Emergency Supply Chain Playbook and a COVID-19 assistance package that created new teams and procedures to expedite the delivery of critical commodities. Butcher stressed the importance of digitizing African supply chains so that supply chain decisions can be evidence-based.

Yawson highlighted the difficulties of storing and transporting cold temperature products, especially for rural healthcare facilities. With drone technology, such products can be delivered to the doorsteps of these remote communities. Yawson further outlined Zipline Ghana's role in delivering vital shipments via the fastest, most reliable autonomous aircraft delivery service in the world.

**Shemau Muniru, Fulfillment Operations Professional at Zipline Ghana,** took participants through a live tour of Zipline's warehouse and distribution center located in the Northern region of Ghana. Participants were virtually transported to their facility as drones were shot into the sky in real-time to deliver vital healthcare products around Northern Ghana.

At the end of both sessions, participants divided into breakout sessions to discuss the various challenges and needs of supply chain actors in Ghana and Africa. CARISCA will use these discussions and future stakeholder forums to guide its curriculum development and its applied and academic research agendas.





Patience Bruce

## CARISCA's Leading Learner: Patience Bruce Adapts to Change and Raises the Bar

As the youngest child of a single mother in the busy Abeka-Tesano neighborhood in Ghana's capital city of Accra, Patience Bruce was raised by her mother and close extended family members.

"From a very young age, I cultivated the habit of learning from my older siblings and different types of teachers, and I was always interested in hearing everyone's advice," she said in her recent profile interview.

Her adaptive listening and learning style has been a key driver of her success as she learns quickly and knows how to teach and lead diverse teams.

"I was fortunate that my mother believed in me. She worked hard to take care of my siblings and me. No matter how busy she was — in addition to her regular job, she sometimes bought palm oil and rice at wholesale prices so we would sell them for extra money — she always sacrificed for us and found money to buy me books so I could read and succeed in school."

Patience's mother also instilled strong values in each of her children, such as good morals, the love of God, hard work, and empowering others. "She wanted me to not only achieve my dreams but also care for others. And if my mom could succeed by working hard, there is no excuse for me to fail."

In school, Patience always did well until she reached advanced algebra. It was the first time she had to ask for additional help, but the review sessions turned out to be more than just math lessons; they were examples of the type of teacher Patience wanted to become.

"One math teacher, Mr. Quartey of New Life Fellowship Institute-Mallam, was always so kind and helpful, and when I asked for extra help before my B.E.C.E. exams (an important standardized test in Ghana), he took the time to make sure I understood the concepts. He never made me feel stupid, and he even helped arrange for after-school tutoring for me and a few friends — and we all did well on the final exams! I still try to model my teaching style after Mr. Quartey because of his desire to help us think beyond the results of the test and understand the material."

Patience went on to get her undergraduate degree in political science from the University of Ghana Legon and her master's in personnel and development in the United Kingdom from DeMontfort University, Leicester, which led to 10 years of progressive success in the private sector.

"One of the accomplishments I'm most proud of in my professional career is developing and launching a management trainee program called U-Generation. It was designed for young banking managers who had the potential to be future company leaders at the then Union Savings and Loans Company Ltd. The CEO encouraged me to come up with the program, so I had a lot of autonomy in program creation, and it turned out to be a fruitful investment for the company."

A decade after completing her master's degree, Patience decided to go back to school and pursue her long-term goal of teaching.

"I never thought I would enroll as a PhD student in a supply chain department. I've always dealt with people management issues — but this has been helpful for my research because I get to look at the intersection between supply chains and personnel management."

When CARISCA launched in June 2020, Patience's skills were a perfect fit, and she was hired as the Director of Learning.



"CARISCA is a great initiative, and we [KNUST] have needed something like it for a long time. I really think that CARISCA can become the supply chain center that everyone wants to associate with for getting a degree and for academic and applied research in Ghana and across Sub-Saharan Africa. If we implement it well and keep motivation levels high, I think the future is bright!"

Patience recently celebrated turning 40, but she has no intention of slowing down. Her work ethic is not for the faint of heart: She runs her own small business, leads the learning team at CARISCA, is a full-time PhD student in KNUST's Supply Chain Department, and she recently published a peer-reviewed book chapter about the [importance of entrepreneurial activity by women and disadvantaged groups in supply chains to meet the United Nations Sustainable Development Goals](#).

Personally, Patience believes that success could mean working in many different fields, but what matters most to her is imparting knowledge and giving back by sharing what she has learned.

"I love working with people, trying to understand the issues they are facing, and seeing how best I can help."

Despite all of her successes, Patience has never forgotten her roots, the importance of community, her mother's sacrifices for her education, or the importance of reading.



*Patience Bruce (right) with her daughter (left). (Photo courtesy of Patience Bruce)*

Patience's eleven-year-old daughter is an avid reader.

"She is a complete bookworm; she can read an entire book series in a week. I don't know how my mother kept buying all those books for me when I was growing up, but now I understand why she did — I'm proud of being able to take care of my daughter in a loving way — she is my number one priority, she is my everything."

## BY THE NUMBERS

### Data Snapshot: Year One

#### 60+ Scholarships

In its first year, CARISCA awarded over 60 Ph.D. and master's scholarships to bright Ghanaian students with financial need.

#### Stakeholder Engagements with 200+ Partners

CARISCA hosted 75 stakeholder meetings and engaged over 200 potential partners to better understand their needs and collaborate on research projects that can enable innovative solutions to supply chain problems.

#### Supply Chain Seminars

CARISCA engaged over 300 students, organizations and stakeholders in online meetings, forums and workshops to discuss best practices in warehousing and advancing women in the workplace.

#### 3 meetings with key advisors

CARISA held two advisory board meetings in year one, October 2020 and April 2021.

KNUST hosted the first Partnership Coordination Committee (PCC) in March 2021. The PCC will build and manage key stakeholder relationships.

#### 360 participants trained

CARISCA has trained 360 participants to date.

#### 43% women

CARISCA's events attracted a large percentage of women, a key goal for CARISCA's programming.

#### 2 courses, 5 degree programs

CARISCA created two new supply chain courses and five new degree programs

## Overcoming Gender Stereotypes: Professional Development and Self-Confidence for Future Female Leaders

At CARISCA's March 3, 2021 webinar, *Overcoming Gender Stereotypes: Professional Development and Self-Confidence for Future Female Leaders*, Ghanaian supply chain professionals discussed how women can overcome gender stereotypes and advance their careers. This webinar series is designed to include and advance diverse voices in CARISCA's efforts to build a robust supply chain research center in Ghana.

The first speaker, **Mrs. Elfreda Dowuona, Sales Operations Manager at MTN Ghana**, highlighted the effects of stereotypes on women and offered concrete tips for overcoming these stereotypes, "To build confidence, we have to take responsibility for ourselves. To do this we have to experiment and try new things; through testing your abilities at new endeavors, you will learn that you can rely on yourself."



*Mrs. Elfreda Dowuona,  
MTN Ghana*

Dowuona noted the importance of evaluating the power of stereotypes, and she urged participants to check their own ideas about people who are different, adding that they should think about the stereotypes they may also place on others.

"Women in the workplace are expected to act in a certain way, and glass ceilings put women into a cage. On a global scale,

women's talents are not explored. It's important that young women develop an action plan for your personal or professional development, and don't let others distract you from your goals — stick with it!" she said.

The second presenter was **Mrs. Nancy Osei Owusu, Maintenance Manager at Ladybird Logistics**. Launched in 2017 by Miss Payin Marfo, Ladybird Logistics was the first Ghanaian company to employ only female truck drivers. Since 2018, Ladybird Logistics has trained more than 50 women to be drivers.

Owusu has been a pivotal part of Ladybird's accomplishments and she attributes a lot of the company's success to training future female leaders through instilling confidence and professional development opportunities.



*Mrs. Nancy Osei Owusu, Ladybird Logistics*

"When women started driving for Ladybird, they were scared, but we tried to use constant encouragement, and always appreciate the women for what they were doing for us [the company] and for other women. We want our employees to believe in their dreams, deliver excellence, stay committed and build confidence and the right group of stakeholders to create the right team."

She concluded her presentation by encouraging participants to embrace failure as a learning opportunity, exercise humility and commitment, and embrace and explore new opportunities in an unwavering pursuit to succeed.

"Do not fear failure as failure is simply an opportunity to begin again. Stay humble and commit to learning more. How you use your brain is up to you. And always embrace and explore new opportunities in an unwavering pursuit to succeed. Don't always toe the line; spice up whatever you are doing to make yourself unique."

The webinar concluded with an engaging question and answer session facilitated by **Dr. Felicity Asiedu-Appiah, senior lecturer in the Department of Human Resource and Organisational Development at KNUST**. Asiedu-Appiah's research includes work-life intersections, ethical leadership, organizational behavior and human resource management.

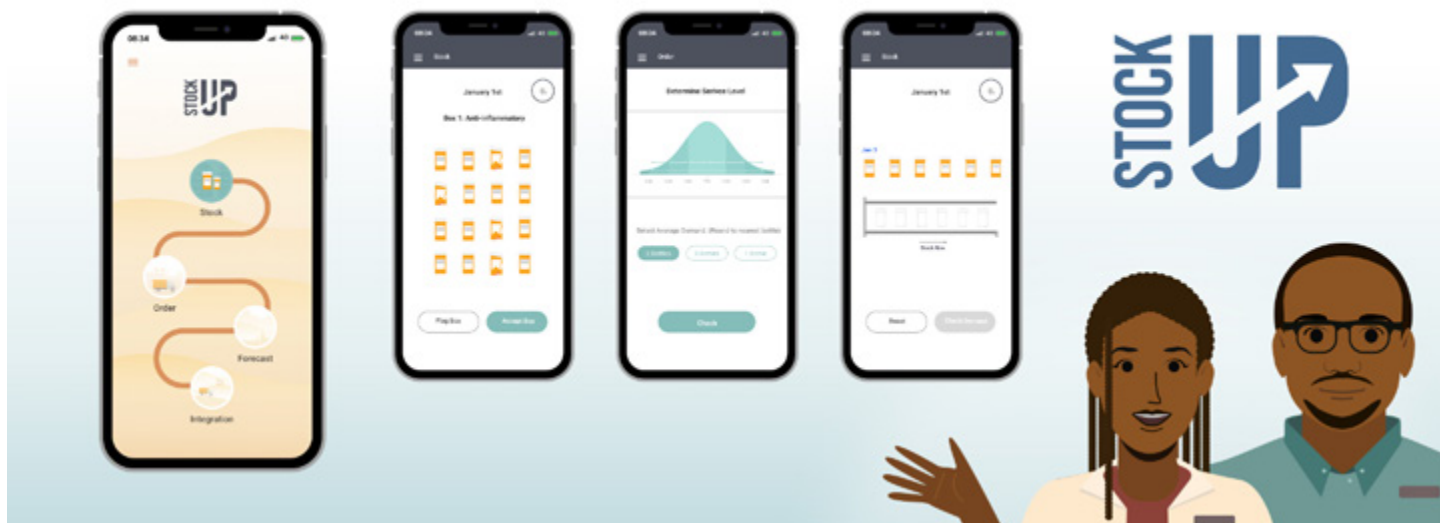
Asiedu-Appiah ended the webinar by encouraging participants to always seek help when needed.

"We cannot do it alone, we cannot say we are doing everything. We need to fall on the support system, ask for help, seek help, seek for help when needed."



## Sneak Peek: StockUp App

CARISCA is developing StockUp, a mobile learning game simulation that will help health care professionals learn about supply chain management practices so they can keep the shelves stocked with vital healthcare commodities.



StockUp is a free mobile app built for Android and iOS mobile phones and accessible in low- and middle-income countries. It follows the journey of a young professional in health care while teaching supply chain skills through games. Mobile learning game simulations can provide an alternative or a supplement to more formal educational practices, and no prior supply chain knowledge is needed! Once downloaded, learners can play continuously without an internet connection. Playing straight through should take roughly three to four hours.

StockUp aims to empower healthcare workers in developing nations by teaching the foundational skills of supply chain through an engaging and educational simulation. For those making health supply chain-related decisions but do not have formal training in the subject, StockUp will provide forecasting, stocking and ordering skills. StockUp will equip players with the tools and knowledge for better decision-making in their daily activities.

## CARISCA's Key Components

### COMPONENT 1: ADVANCING SCM RESEARCH

- Strengthen culture of research
- Teaching buyouts to increase research
- Increase high-quality research publications
- Gender-informed research
- Annual research summit

### COMPONENT 2: ENGAGING STAKEHOLDERS

- Translate research into applied solutions
- Expand and enhance stakeholder network
- Create a self-sustaining consulting practice

### COMPONENT 3: CURRICULUM AND TRAINING

- Strengthen and expand the supply chain curriculum
- Inclusive recruitment and retention
- Low-cost online learning
- More continuing education options
- Create training apps for practitioners
- Provide scholarships

# SUPPLY CHAIN RESEARCH SUMMIT

## A VISION FOR AFRICA'S SUPPLY CHAINS



**July 21-22, 2021 | A free online event featuring four keynotes, six sessions, and two panel discussions**

Join us for lively discussions on some of the many facets of supply chain management including healthcare supply chains, supply chain financing, cold chain transportation, global supply chains, sustainability in supply chains, and supply chain analytics.

The theme for this event is A Supply Chain Vision for Africa. This free, two-day virtual supply chain research conference features four keynotes, six invited sessions, two panel discussions, and a dissertation competition.

This conference is geared toward faculty and graduate students interested in supply chain issues and opportunities in Africa, as well as supply chain professionals. Our goal is to create a supportive network of pan-African supply chain researchers to facilitate large-scale collaborations and increase institutional and public/private sector and civil society organization relationships. While registration just opened, there are already participants from 40+ countries planning to attend — please register and join us on July 21 and 22!

**The event is free but registration is required.**

For more information and to register for the event, please visit <https://research.wpcarey.asu.edu/carisca/summit>.

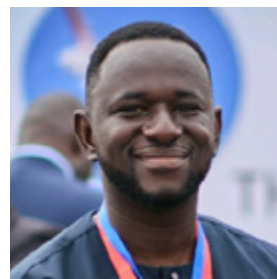
### KEYNOTE SPEAKERS



#### **Managing the Supply Chain in a Turbulent and Uncertain World**

**Prof. Martin Christopher**  
Emeritus Professor, Cranfield University, UK

Martin Christopher has been at the forefront of innovative thinking in logistics and supply chain management for almost fifty years. At Cranfield School of Management, he helped build the Centre for Logistics, Supply Chain Management and Procurement, which is now a leading centre of excellence in logistics and supply chain management.



#### **Digitization and Medical Supply Chains in Africa**

**Mr. Daniel Sarfo Marfo**  
Senior Vice President, Zipline International, Ghana

Daniel Marfo is a pharmacist by training with over 10 years of experience in the healthcare and technology industries. He presently leads Zipline's efforts to rapidly deliver medical and blood products to patients all over Africa as a Senior Vice President. Daniel has worked extensively in management positions for big pharmaceutical companies, including Johnson & Johnson and Sandoz.



## KEYNOTE SPEAKERS



### **Sustainability Issues in Supply Chains in Africa**

**Prof. Chris Ogbechie**  
Pan-Atlantic University, Lagos,  
Nigeria

Chris Ogbechie is a Professor of Strategic Management and the Dean at Lagos Business School, Pan-Atlantic University. He has vast experience in marketing, strategy, and corporate governance and he is the founding Director of the Business School's Sustainability Centre. In addition to teaching and conducting research, he is involved in community service and philanthropy.



### **Health Product Supply Chains – Opportunities for Teaching, Research and Service Impact**

**Dr. Prashant Yadav**  
Center for Global Development,  
USA/UK, Harvard Medical  
School, USA

Prashant Yadav is a Senior Fellow at the Center for Global Development, Affiliate Professor at INSEAD, and Lecturer at Harvard Medical School. He is a globally recognized healthcare supply chain scholar. He has also worked in several high-profile roles, such as the Vice President of Healthcare at the William Davidson Institute, and serves on several company boards.

## CONFERENCE SESSIONS and PANEL DISCUSSIONS

### **Session 1: Healthcare Supply Chains**

Session Chair: Prof. Gilbert Nyaga, Northeastern University, USA

### **Session 2: Supply Chain Analytics**

Session Chair: Prof. Andoh-Baidoo, University of Texas Rio Grande Valley, USA

### **Session 3: Sustainability in Supply Chains**

Session Chair: Prof. Sherwat Elwan Ibrahim, American University in Cairo, Egypt

### **Session 4: Supply Chain and Information Systems**

Session Chair: Prof. David Asamoah, KNUST, Ghana

### **Session 5: The Intersection of Public Health Supply Chain Research and Policy**

Session Chair: Dr. Frankline Keter, Africa Resource Center (ARC)

### **Session 6: Global Supply Chains**

Session Chair: Dr. Magnus Hultman, University of Leeds, UK

### **Panel Discussion 1: Advancing Women in Supply Chain: Research Questions and Opportunities**

Moderator: Dr. Felicity Asiedu-Appiah, KNUST, Ghana

### **Panel Discussion 2: Supply Chain Financing**

Moderator: Prof. Thomas Choi, Arizona State University, USA

### **Dissertation Award Session**

Session Chair: Prof. Erik Hofmann, University of St. Gallen, Switzerland

**See the full Summit schedule and register today**

<https://research.wpcarey.asu.edu/carisca/summit>



## U.S. Ambassador Visits KNUST

U.S. Ambassador to the Republic of Ghana, Stephanie S. Sullivan (center in gray suit) visited KNUST on April 21, 2021, to learn more about the many ways that KNUST is contributing to Ghana's prosperity through U.S. government-funded projects like CARISCA.

### IN-PROCESS INVENTORY

## CARISCA's Upcoming Events

*Event dates and details are subject to change. Visit the [project website at ASU](#) or the [Center website at KNUST](#) for the latest information.*

- Professional Networking with LinkedIn featuring Katy Keane, July 7, 2021
- Supply Chain Research Summit, July 21-22, 2021
- PhD Dissertation Competition, as a part of our Supply Chain Research Summit, July 21-22, 2021
- Advancing Women in Supply Chain Webinar, September 15, 2021
- Partnership Coordination Committee, September 28, 2021(tentative)
- CARISCA Advisory Board Meeting, October 13, 2021
- Supply Chain Stakeholder Forum, November 9, 2021

## Get Involved

If you want to learn more or get involved, please visit CARISCA's website and sign up for our newsletter.

**[research.wpcarey.asu.edu/carisca](https://research.wpcarey.asu.edu/carisca)**

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