



Kale Logistics

Technology that Transforms



ClearView

A Kale Thought Leadership Summit for Air Cargo

Cape Town, South Africa | November 2019

Key Excerpts from the Summit





Synopsis

Dear Industry Colleagues,

It gives me great pleasure to present to you the 'CLEAR VIEW report. CLEAR VIEW– A Kale Thought Leadership Summit for Air Cargo' took place at The President Hotel, Cape Town, South Africa on 4th and 5th November 2019. It was a distinguished gathering of CXOs from Air Cargo Ground Handling, leading Airlines, renowned consultants and representatives from international trade bodies like TIACA and IATA.

This edition of CLEAR VIEW focussed on three important aspects of the Air Cargo Industry - Crystal Gazing Air Cargo Industry – 2030, Digitization in Air Cargo, Emerging and New Business Models in Air Cargo.

The previous three editions of CLEAR VIEW summit took place in Dubai, Athens & Bangkok which were a great success, with top executives attending from IATA, leading Airlines, Cargo Handlers, Industry Associations, Regulators and prominent Industry Consultants from North America, Europe, Africa and Asia. The summit had four power-packed and focussed discussions which yielded some very meaningful insights into the present and future Air Cargo industry trends. The summit sessions were designed to benefit the Cargo Ground Handling Agents (GHA), Airlines and their ecosystem with an intent to raise discussions revolving around innovation, Measuring performance for transformation, and the Modal Shift, e-Commerce and Digital Disruption.

This summit for the Thought Leaders of the Air Cargo Industry is a platform to share their experience and know-how around a focussed discussion, where we go beyond the issues and seek to identify real-world solutions. We gather not to follow everyone's agenda but to exchange views and key learnings that drive value for the Future of the Air Cargo Industry.

Best regards,

Amar More
Director
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We have been facing the decline of the air cargo volumes, especially in Europe. This is mainly attributed to the trade war between USA and China and it is predicted that the tonnage may go further lower. We can either ponder over the hard times or do something about it to counter this development. What is the first reaction from our industry – drop prices, but this will not strengthen our business, it is only a reaction on a short notice which may help us for a short term. However, this shows our helplessness in handling cargo business.

The industry must believe in its future and not degrade itself. Now is the time to change our mind-sets and we need to act proactively. The industry needs to come together and put together a process, which is long overdue. Let's find synergies and put our act together to achieve these goals. The data exchange between various actors of the supply chain is important to understand essential needs of our partners

Let us find new solutions for our work, explore more options like integration and Augmented Reality for our cargo handling process. Each industry is developing their processes based on Information and Technology, but at the cargo business, we are only waiting. We have the responsibility to develop this industry, our responsibility is around our clients, staff and our organisations.

It is important to optimise the bellies of the aircraft, let's make all players in the air cargo environment aware of the value in air cargo. Let us create the future and we need to think outside the box, and CLEAR VIEW is the right conference to start.

Claudia Weidenbusch

Managing Director, Cargogate



The Air Cargo market has been on a downward spiral for the past eleven months. International freight accounts for circa 87% of total air freight with most markets experiencing a decline in international freight except Africa in August. The industry continues to face headwinds from weakening global trade accelerated by trade wars; new security regulations; the price of fuel and the growth of e-commerce. A possible indication of a worldwide recession in spite of the U.S & some other economies showing growth numbers in September 2019. And Air Cargo is a good indicator of world recession.

In 2018, total global exports exceeded \$19 trillion, including specialized goods falling into almost every possible category imaginable. The top 15 exporting countries account for circa 63% of total exports in 2018 with China by far the largest at 12.6% and if Hong Kong is added, this number balloons to 15.7%. The United States follows in 2nd place at 8.6%, with Germany Japan and the Netherlands rounds up the top 5.

In terms of imports, the top 15 exporting countries account for circa 65% of total exports, with the United States the largest followed by China, Germany Japan and the UK as the top 5. In terms of the overall economy, the top 5 countries mirror to top 5 Importing Countries, whilst the top 4 mirrors the top Exporting countries. However, the top 10 economies represent circa 67% of the world's economy, with the United States at #1, China at #2 and India at #6.

By 2030, a different picture is supposed to emerge. China will become #1 with its economy forecasted to be circa 40% bigger than the Indian economy at #2 and double that of the United States. Between 2017 and 2030, China economy would have grown by 177%, India at 387% and the United States at 60%. Asian Countries will dominate the top 10 with 5 followed by Europe with 2, North and South America with 1 each and Africa with 1.

What are the current challenges?

Both individuals and businesses expect to get goods faster, more flexibly, and in the case of consumers – at low or no delivery cost and for businesses more transparency at a lower price. This has put both operating models and profitability under strain. We must make maximum and intelligent use of new technology and how fit a company digitally will be a foundation for success. Therefore, defining a clear digital strategy that is linked with the business strategy will be essential for success. Data analytics that connects all Supply Chain Members and adding machine learning and artificial intelligence techniques to data analytics can deliver truly dynamic results & improvements. Internet of Things – IOT or Internet of Cargo – IOC / Common IT Standards / Cloud based platforms / Blockchain / Robotics & Automation / Autonomous Vehicles / UAV's Drones / 3-D Printing.

Platform technology has given rise to new business models, often driven by start-ups that enter the logistics industry. The industry's current customers and suppliers may end up being the biggest new entrants. As an example, Virtual freight forwarders who do not have any assets or asset-light businesses exploit digital technology to offer interactive benchmarking of freight rates, or match shippers with available capacity. Some enable carriers to bid on loads, allowing them to lower their bids in order to fill up capacity. They're also providing quotes more quickly and increasing price transparency – for example, by linking via API directly to a large number of carriers and providing customers with their negotiated rates for each of the carriers they use so they can compare directly. Allow carriers to bid on shipments allowing lower rates to fill empty capacity. Quotes are also provided more quickly with enhanced rate transparency. Last Mile Delivery has also seen recent new entrants.

What will the Industry look like in 2030?

- The timeline for Airport to Airport movement of shipments reduced by half to three (3) days
- Industry will be well digitized with maximum & intelligent use of technology facilitating collaboration and transparency
- The need for freight forwarders will still be as agile as today for air freight shipments
- Automation at cargo terminals will be enhanced with a reduction in truck wait times and increased efficiencies in human – machine interaction resulting greater productivity and superior customer service
- Major eTailers like Amazon & Alibaba will grow their freighter networks significantly and possibly have a negative impact on Integrators & Combination Carrier Freight operations



Dr. Emre Serpen

President, TroyAvi

Moderated by

Q

There is resistance in the industry to change. Now it is the wake up call for us. The challenge is how to make it happen when we have so many issues at hand with time paucity. What are your views on this?

A

Hans van der Zwet : I do not think this is difficult, as not all customers, airlines, forwarders, airports, and handlers exactly know what is possible in terms of technology. In most cases they need to be educated on the digital vision and strategy. To give you an example, for the past one year we have been working with a handling company to build their strategy and IT capabilities, which resulted into an RFP being floated after 1 year which is very comprehensive. Therefore, customers are listening and receptive to new technologies, it's only a matter of time and education. There are developments happening, like Schiphol airport is very active in the area of trucking concept where two trucking companies are playing an important role between the freight forwarders and cargo terminals. They pick up export cargo and deliver it to the terminal for all of the forwarders in common. In the same way, on the way back bring import cargo to the forwarders warehouse. There are developments which are taking place slowly.

Q

There is change taking place in the industry, with the realisation of numbers of what is ahead really opens up people's mind. However, this is an industry view. Do you think the time has come or these are early steps?

A

Alwyn Rautenbach: From the South African experience, at the cargo terminal, truck congestion is a big problem. The reason being there is no restriction on the trucks entering. What we really end up with is from small motor vehicles to super link trucks, which are completely incompatible with airport terminal jamming the gates and area outside. There is also no coordination from the airport to improve the situation. It is very important that the freight move faster. Another important aspect is IT integration, currently the freight forwarders systems does not integrate with the airlines systems or Customs' systems. We may have all technologies to deliver, but the absence of a platform to integrate all may not help.

Q

What needs to happen in the industry to accelerate the change we all are wanting? So many stakeholders are at different stages of thinking, maturity and technology adoption. Is it too early to move to digitisation?

A

Vineet Malhotra: I have a different opinion here, from the context of the various examples we have been sighting of Amazon, Alibaba from e-commerce. The element of non-digitisation, which means infrastructure, processes, strategy, skilling, new talent, etc. Are all these taken care in the industry first before we look at digitisation?

Claudia Weidenbusch: There is nobody leading/representing this in industry in a holistic way. As an industry, there is nobody in the driver's seat and we are not communicating amongst us. But each one of us are focussing on resolving our own problems and not collaborating to form industry voices or representation. We must focus to develop our strengths and work as a team.

Q

Amazon is setting up their own air freight system with 20+ freighters, where they control costs and establish transparency. What do we do to improve our costs, transparency and provide services that the customers want?

A

Garth Van Der Horst: A lot of perspective in this room today is from an Airline company who traditionally move passengers and does Cargo without major focus. That is not the thinking of companies like Amazon and Alibaba which are cargo focussed and not passenger. Our industry will continue to have improvements on the passenger front in the coming year and cargo will continue to suffer.

Patrick Murray: The part of the problem is that as an industry we are very fragmented and we don't work together. There is role of bodies like IATA, FIATA, TIACA to educate the industry on the benefits of collaboration. In terms of platforms and technology, they already exist and there would be a little challenge to link them up. The success of this collaboration then needs to be sold to others and proof that this is the way to go forward, people will listen. We at Dubai set a target for paperless implementation for government agencies by 2021. Imagine an environment where you have no paper-based invoice, bill of lading, Airway Bill or packing list. The speed of freight will be tremendous, and speed of information determines the speed of freight. Then add pre-clearance on top of it, one will know everything that is coming into the country. The freight will be directly loaded to the truck from the terminal upon arrival with great speed.

Digitization is disrupting various business processes and industries. Air Cargo is not an exception. Most importantly, it is with a combination of AI, Blockchain and IoT. This wave is spearheaded by Digital Technology Enablers namely IoT & Edge, Advanced Analytics, AI & Cognitive, Graph Technology, Blockchain, Digital Workplace, Mixed Reality and 3D Printing.

The African Continent is suffering due to poor internet connectivity. In such cases, the availability of IoT & Edge services of Microsoft will be a boon as this smart system will utilize internet only when required. Therefore, a measure to ensure optimum utilization of resources. Knowledge Management is yet another space which is turning out to be dynamic. Somehow capturing information from documents and images in different formats didn't gain enough momentum. In the air cargo space especially, capturing data from documents in different formats have not been possible. Availability of a holistic technology to ensure availability of a robust mechanism to capture relevant data from different file formats will be more feasible and ease the overall operations.

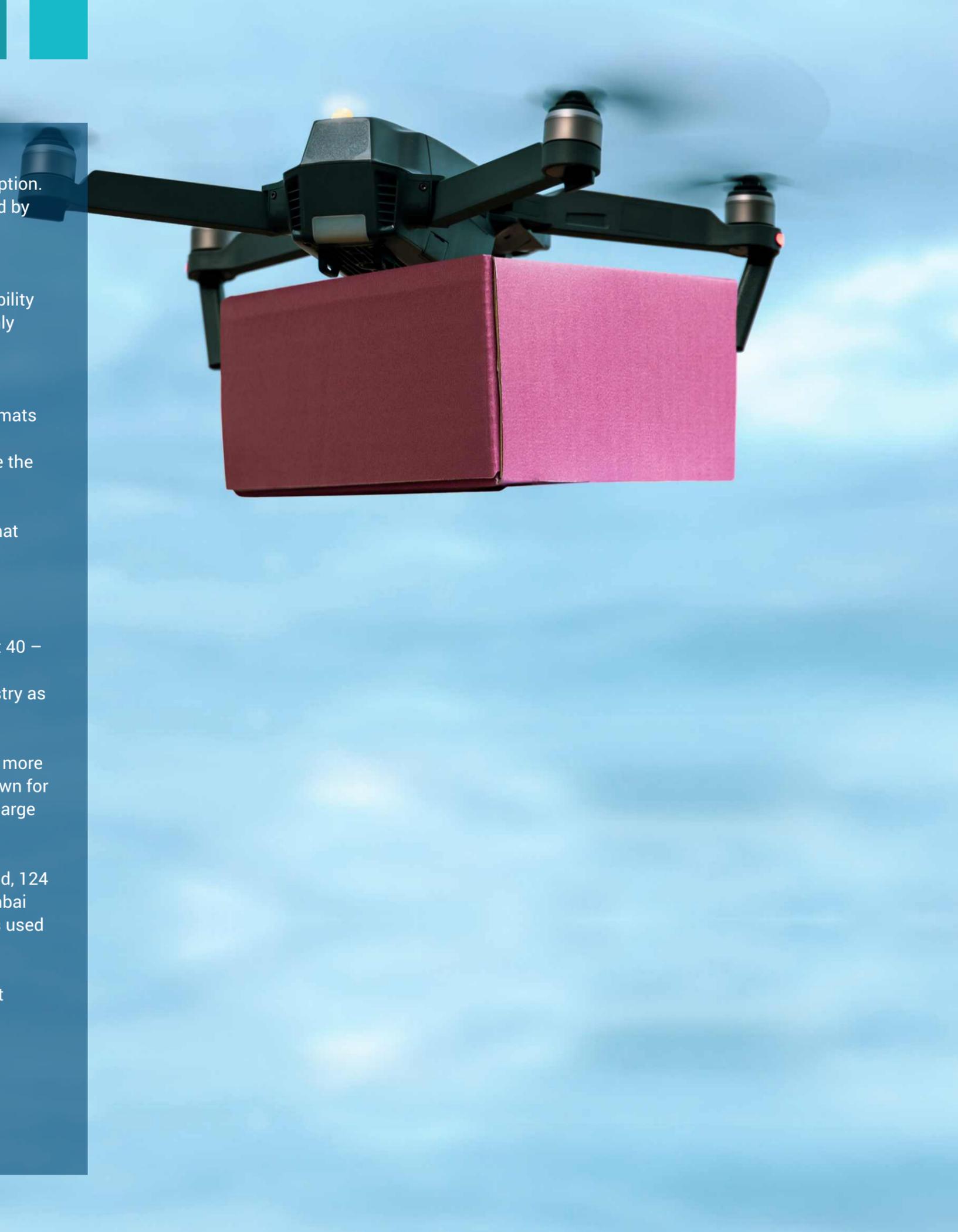
Under Satya Nadella's Open Data Initiative, a common data platform will be made available that comprises of all the third-party applications, internet, IoT devices and various other systems. Hence the goal of cost reduction, resource management, enhanced capabilities and boosting customer satisfaction is seamlessly achieved.

Logistics industry has the greatest number of divisions compared to others i.e. it has at least 40 – 45 subindustries. Right from commercial invoicing to proof of delivery, there are around 68 transactions that take place here. Going digital is the best way forward for the logistics industry as that will reduce a lot of paperwork and also speed up the overall processes.

e-Marketplaces are said to be trending in the coming years as there is demand and scope for more penetration in the logistics space. Blockchain has soared high since the time it has been known for transparency and robustness. So, in a complex industry like logistics, Blockchain will have a large role to play.

A lot of paperwork is involved in sending a shipment from the origin to the destination. Around, 124 copies of paper are involved in each shipment. This is a real time scenario happening in Mumbai Airport. After the implementation of Data Clouds and Backbones, the number of paper copies used for one shipment came down largely.

3D Printing is one factor that could simplify export import operations in the coming days as it saves a lot of time and effort for all. Also, cryptocurrency transactions are in the rise now. Its robustness could actually take it forward as it is already one among the new age developing technologies.





Vineet Malhotra

Director, Kale Logistics Solutions

Moderated by

Q

From an exporter's perspective, what is the expectation in terms of the industry having a digital infrastructure?

A

Sandile Sibisi: Having a digital infrastructure is the best scenario for the exporter. The moment there is digitisation, the entire process is simplified and there is visibility. This is what I need as an exporter. I want to know the delivery timelines, what is required from me to get the cargo on time. Most of the cases we deal with special goods, which needs special documentation. So digitisation is the answer to most of the challenges faced by us.

Q

What are initiatives taken by us to give visibility to the supply chain and how did they fare?

A

Claudia Weidenbusch: We started a project concerning animal handling where the European community says it is a must to consider various regulations which must be done by a trained person. We started this initiative and wanted data for how many animals are handled at Munich Airport during a week/month/year. The airlines, airport and ground handler had no data on animals being transported as cargo. Lack of data puts the challenge to build the business model for animal handling. So, it is important that data is available which we can trust.

Daniel Tanui: From the users of the facility, what I would expect the Airlines to assist us on pre-advising on the cargo arrival, when it would be delivered, in what quantities and how long it would be with the terminal operator. We would need visibility of the cargo when we work with forwarders, importers and exporters.

Patrick Murray: This is where Cargo IQ comes to making every shipment strong with Master Operating Plan (MOP). One can track shipments and deviations against MOP, but the problem is most airlines and ground handlers do not have systems to plug-in to MOP so sharing information is not possible. The customers are more interested in when the cargo will be delivered and if there are any exceptions, they are not interested in acceptance, delivery and other milestones. But the MOP should be sacrosanct, when the alert comes the airlines have the capability to react to these alerts to get the cargo on track or inform the customers on the delay. When we talk about transparency, there is nervousness around sharing data. But we are open about our mistakes, the customer will accept, and it will enhance the trust between you and the customer.

Q

What would you suggest to the industry on collaboration, which is a priority?

A

Kai Domscheit: I would think like an integrator, if it is one company and all participants are the shareholders. There should be one operational system, which is common and unified. If we start looking at the industry as one company with shareholder with one system and then introspect on what we can do as a team. The current scenario is very different; a shipper expects the cargo to be delivered from point A to B undamaged and on time. However, the freight forwarder does share data in a transparent way on e-platforms, they are like a black-box operations withholding information. They only give information on demand and never in full. Again, data interpretations are different for different stakeholder. We should look at how amazon does it; they are very customer centric unlike us who do not look beyond our tiny ecosystem. What may work is stricter regulations and penalties for non-compliance. Once that is done, organisations will listen and follow not by choice but by force as our industry is not matured enough to understand this.

Emre Serpen: There are three words Complexity, Trust and Collaboration which are important in today's environment. If we look examples in the industry, we all know that Airlines and Airports have animosity, but one area where they successfully cooperated and delivered results is A-CDM (Airport – Collaborative Decision Making). It focuses on improving the efficiency and resilience of airport operations by optimising the use of resources and improving the predictability of air traffic. If we break down the complexity and we are doing that in the airport level for the community, the airport can take the lead which is collaborated by major airlines and Freight Forwarders of that airport. This community starts solving problem for that area. Similarly, other airport communities can connect on a digital platform and exchange information. This is how the system can evolve.

Tamsin Emery: In my experience, nobody wants to share data and they are very protective about it. Unless we break down that barrier, we cannot really move forward. It is a great idea to break the collaboration into smaller steps to get the entire digitisation across the supply chain. Also, education and awareness are very important, with education they would realize that the benefit outweighs the risk of sharing data.

Air cargo is a crucial enabler of the global economy. It represents 35% of global trade by value but less than 1% of trade by volume. The value of goods transported by air are USD 6 trillion and over 68 million people are employed in the aviation industry. E-commerce has grown at the rate of 250% from 2013 to 2019.

The countries/regions which have shown a positive growth in e-commerce are China 24%, Asia 19%, South America 17% and USA 16%. In cross-border e-commerce, China leads the position with 38% share followed by USA at 15% and UK at 10%. To make 72 hours delivery promise a reality, air cargo carriers and their partners need to address the pain points of e-commerce shippers. Some of the hurdles in this 72 hour delivery Customs clearance, seamless integration with first and last mile delivery companies, reverse logistics and end-to-end shipment visibility.

There has been shifting patterns, where shippers are moving to other modes of transportation for e-commerce from air cargo due to lack of transparency and lack of handling infrastructure. Also, the ocean transport is developing capabilities to handle e-commerce freight with reduced timelines at much cheaper rates. Pharmaceutical goods are also moving to ocean freight due to improved handling facilities and reduced times.

Costa Rica has strong air connectivity to US markets. By improving connectivity, adopting e-Freight initiatives and facilitating cross-border trade, Costa Rica has developed a strong air cargo industry. The manufacturing of medical devices in Costa Rica grew by 54% in 2014, with the volume of medical devices exported increasing from US\$97.3 million to US\$149.9 million. Employment grew from 6,000 employees to 12,500 in this sector from 2006-2011.

Africa is an emerging market for pharma, textile and e-commerce. The air cargo industry needs to put together a working model to support and service these new emerging markets and opportunities.





Q What should we be doing to embrace e-commerce? How should we move forward and what should be the industry action plan?

A **Amar More:** What we understand from big e-commerce giants like Flipkart, Amazon etc. is that, for e-commerce companies, the status of the shipment is very important as it is a KPI for the customer satisfaction department. The visibility is lost when consolidated goods reach the airport through House Airway Bill and Master Airway Bill. Black spots start appearing at the ground level even though truckers use GPS systems and tracking mechanism. The airline system needs to change for example, bag level tracking has to be implemented. There are many other aspects like speed of preference to e-commerce industry. At Delhi Airport, the warehouse of an e-commerce is different from the normal warehouse. So, that has to change.

Abhilash Kunjupilla: What is cumbersome for us is we are manually updating the system so our clients can get visibility, we live in an age of information. The pain of building some sort of EDI- interchange, we run automated status reports for our clients on ocean we get feeds but on air it's a manual thing depends on the airline also. And all the customers are from books and media that are giving an online service to their customers here in South Africa. And with all of them we built up the console. If we get the information from the master, then we can get this thing done and the end customer is happy. So, we are talking about how we create more potential for air-freight while forgetting there is a client who requires the most.

Zane Cleophas: There is one thing that is specifically not done i.e. the optimisation of current data and the reason is perhaps black holes of data. But if we look at the tools that is available as an industry thought of creating an efficiency model, the required energy putting with respect to required output, is to optimise the data. This is a very niche market for cargo as it is shipped through sea. But special conditions we ship by air. Example,

everybody started off a couple of years back not knowing where the drone technology will take us to, for instance, delivering to different location which in turn proves that there is an opportunity for air cargo environment to play in where the drones won't play. And I think when you start aggregating and optimising data for efficiency, you can start using and protecting your interests.

Q How do we overcome the regulations (govt., carrier, general) for pharmaceuticals shipments?

A **Sam Okpro:** When it comes to Pharmaceuticals, we understand people's life depends on it. Their movement must be safe. It must arrive on time to ensure that those who need medication get them appropriately. Going around with regulations is not a problem. What matters is, how safe we get them to the patients and possibly saving their lives. That was important to us in Etihad. It is also notable that we were getting back the market share that we lost.

Alwyn Rautenbach: My overview on pharma is, when you have a highly regulated product, it is actually easier to handle. Every step of the way and rules are known to everyone. Thus it makes it easy because people are educated. I find pharma has far less problems than other products because all the rules are so well known.

Abhilash Kunjupilla: Yes, the forwarder in the airline industry understand the regulations of pharma industry. But does the ground handling agent and carrier handler know that? For us in Africa, at least 90% of the medicine comes from India and there are no direct flights to South Africa. It is all coming through the Middle East. I have had two instances where pallets of pharma are left on the tarmac for 3 hrs at 50 degrees temperature The little metal cannisters on the middle of the pallet and some of those with data logs where it is written, keep it in 90 Degrees.



Alwyn Rautenbach

Managing Director, Airlink Cargo

I would like to thank Kale Logistics Solutions for bringing this conference especially to South Africa. If we look past the discussions for the past two days, one might not think that we should accomplish a solution as it is not important as all the thought provoking discussions that happened here will leave a lasting impact on everybody's mind which will make them to find solutions for the issues raised here and that is important according to me in order to create solutions in future.

I see technology is moving on an advanced pace, but if we look backwards from the logistics space, what we see is transparency and integration of systems. Data that exists are captured multiple times, that slows the process down. When we get to airport terminal development, there is a drastic change required in the financial model because an incentive to development is return on investment and until that changes, people want to put money into cargo terminals instead of passenger terminals, if that model changes then it will change itself.

Again, every aspect is associated monetary with terms. The fact that sea transport is becoming a better option than air transport, that will indeed trigger the competition and that is the catalyst which will drive the cycle. Opportunities will be driven by e-commerce and logistics chain that will make it work. Thank you all for the fruitful discussions.



Delegates



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Dale Harrison
Cloud Solution Architech
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SARS Commissioner
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Garth Van Der Horst
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South African Airways



Hassan Daud
IT Head
Interpel



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Air Charter Service



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Kriti Pant
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Delegates gather to enjoy the evening with Zulu dancers and African drummers





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For me this is the most important conference during the year because of exchange of experience and information, which I trust. It has helped me know what is happening with the industry in the other parts of the world. The learnings from this summit are shared with my shareholders and my organization.

– Claudia Weidenbusch, MD, Cargogate, Munich, Germany

It's the presenters, delegates who from far and wide come to share their thoughts on the dynamics of the trade. These discussions help in assessing where we are as a country – Kenya and sometimes it helps us know that we are grappling with the same issues as the developed nations. A set-up like this helps us identify areas where we can improve.

– Daniel Tanui, MD, Mitchell Cotts, Mombasa, Kenya

I think it is the focus, scale and continuity of getting in-touch with a set of people who are focused and see how things are evolving across the industry. It was nice to see actions taken, on the issues that were discussed last year, especially on e-commerce. I like the practical angle of the discussions, information which is shared and is to the point and nobody is trying to market anything.

– Dr. Emre Serpen, President, TroyAvi

It's been great to interact with different parts of the industry and have them in the same room, sharing ideas and talking about our challenges has been very valuable. This is also laying foundation to how we all can collaborate as an industry to solve problems for the industry and not just ourselves.

– Abhilash Kunjupilla, Director Operations, Imperial Logistics, Johannesburg, South Africa

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