Digitalization of the Port of Banjul

Our Experiences and Lessons Learned

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Introduction

- **About the Port of Banjul**

The Gambia Ports Authority (GPA) was established in 1972 as a statutory public corporation with the mandate to operate such port facilities best deemed expedient to the public interest.

The GPA provides facilities and services for the berthing of vessels, discharging, and loading operations using cargo handling equipment for both containerized and non-containerized cargo. The GPA, due to its business, manages assets such as container terminals, land, bonded and conventional warehouses, office buildings, tugboats for berthing assistance, dredgers for maintenance dredging, cargo handling equipment such as reach stackers, forklift trucks, and tractors and trailers and maintenance workshop.

- **Importance of Digitalisation in Port Operations**

Digitalization is pivotal in the modernization and optimization of port operations, especially given that 80% of goods are transported via sea. With the supply chain becoming increasingly complex and the demand for goods like raw materials and finished products rising annually, embracing digitalization becomes an inevitable necessity. This transformation is crucial for effectively and efficiently managing the end-to-end processes of the maritime supply chain.

In summary, digitalization is essential for modern ports to improve operational efficiency, enhance decision-making capabilities, ensure security and sustainability, and stay ahead in a highly competitive and rapidly evolving maritime landscape.

Challenges Before Digitalisation

INEFFICIENCIES IN MANUAL PROCESSES

LACK OF REAL-TIME INFORMATION

REVENUE LEAKAGE

OPERATIONAL BOTTLENECK

REPORT DELAYS

INTERCONNECTIVITY ISSUES

KPI MONITORING CHALLENGES

Our Risks

- Senior Management Support
- Governance and Policy
- Capacity and Skills
- Passive Resistance
- Local Resources
- Cyber Security

Our Digitalization Initiative

Automated Cargo Tracking System: Implementing a digital system to track cargo from entry to exit, including real-time updates for stakeholders.

Electronic Document Management: Transitioning from paper-based to digital documentation processes, improving efficiency and reducing paperwork.

Smart Port Infrastructure: Investing in IoT sensors and smart devices to monitor port activities, optimize resource allocation, and enhance security.

Digital Payment Solutions: Introducing online payment platforms and electronic invoicing for port services to streamline financial transactions.

Data Analytics and Predictive Maintenance: Utilizing big data analytics to optimize port operations, predict equipment maintenance needs, and improve overall performance.

Port Community Systems: Implementing a digital platform for seamless communication and collaboration among port stakeholders, including customs, shipping lines, and logistics providers.

Remote Monitoring and Management: Leveraging remote monitoring technologies to oversee port operations, troubleshoot issues, and make data-driven decisions from anywhere.

Cybersecurity Measures: Strengthening cybersecurity infrastructure to protect against cyber threats and ensure the integrity and confidentiality of digital data.

Training and Capacity Building: Providing training programs and capacity-building initiatives for port staff to enhance digital literacy and skills required for modern port operations.

Green Port Initiatives: Integrating sustainable practices into digitalization efforts, such as using renewable energy sources and optimizing energy consumption for environmental sustainability.

The Strategy and Workplan

IT/IS 4-year Strategic Plan

- Business Services Delivery
- IT Operations and Infrastructure
- GPA's Practices and Shared Resources
- Social Media Integration and Access
- Business Intelligence and Data Analysis
- Privacy and Security
- Policy, Governance and Regulations
- Collaboration, Capacity Development and Innovation

Annual Workplan

- Infrastructure Enhancement
- Cybersecurity Strenthening
- Business Systems Enhancement
- Collaboration and communication
- IT Governance and Compliance
- Support and Training

Key Components of Digitalization

Back Office

Terminals

Harbours – Ship-to-shore, Billing, etc
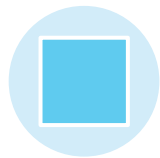
Stakeholder Integrations

Payment Intergrations

Sustainable Technology Solutions

Security and Surveillance

IT Infrastructures

What we have Digitalised
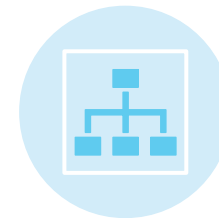
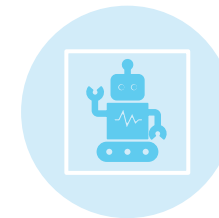SHORE HANDLING REVENUE

CARGO DELIVERY AUTHORISATION

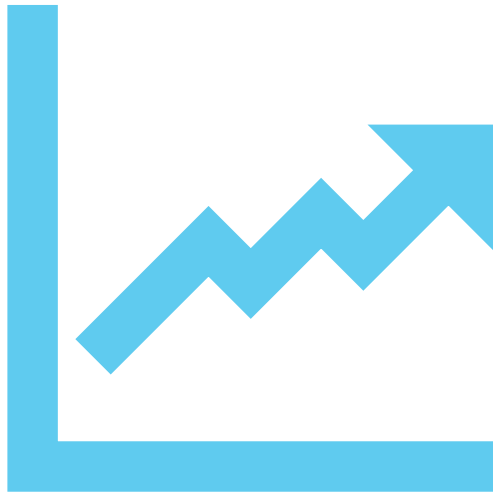ELECTRONIC GATEPASS

ELECTRONIC DELIVERY ORDERS

ENTERPRISE RESOURCE PLANNING (FINANCE, HR, PAYROLL, SUPPLY-CHAIN & PROCURMENT, INTERNAL REQUISITION)

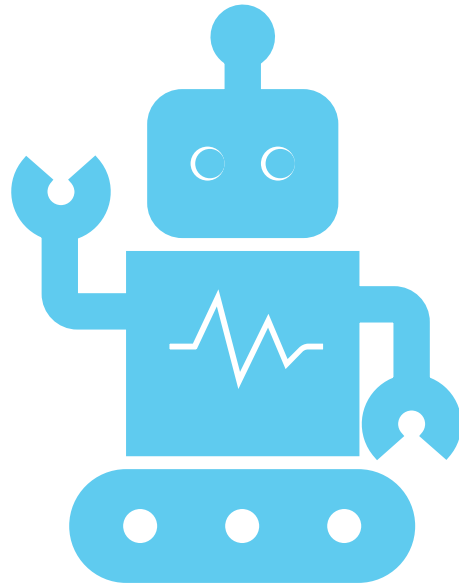ELECTRONIC CARGO TALLYING SYSTEM (ANDROID APP AND WEBBASE)

Benefits Archieved

- Improved Efficiency and Productivity on Digitalised Processes

- Enhance Cargo Status Tracking

- Improved Turnaround Time

- Cost Savings and Revenue Growth

Success Stories and Case Studies

▶ Case Studies of Improved Processes and Results

  ○ eDo Introduction has significantly improve the release process by 80%. Manual DOs used to take between 10 to 30mins depending on the cargo numbers.

  ○ Authorisation processes now will task less than a minute in the delivery process.

  ○ With the introduction of the eGatepass, this has significantly improved our cargo delivery time. Has also provide our compliance and claims units real-time access to data.

  ○ Processes and roles are also been streamline. What 10 Staff will do, only 1 or 2 max can handle those tasks efficiently, and the rest can be assigned much suited tasks.

▶ Testimonials from Stakeholders and Partners

  ○ Reduce cost in transaction within the port

  ○ Improved clearance process

Lessons Learned

- Importance of Change Management

- End-user buy-in

- Cloud or on-premise?

- Having the right Implementation Committee/ Project Team ; You need to have a clearly defined project charter approved)

- Understand your Ports technology competency level.

- In-house developed, outsourced or off the shelf?

- Should the software vendor provide the hardware?

Our Future Directions

- Short Term – within the next 3 years
  - Fully functioning Port Management Information Systems
  - Terminal Operating System
  - Vessel Traffic Management Systems
  - Establish a Data Collaboration Committee for trade and logistics at national level
  - PCS and Maritime Single Window
  - Automated Zones and Access Control Solutions
  - Optimise and implement solutions that are UN SDG friendly

General Recommendations

- Data Collaboration Committee at a continental, regional and national level

- Associations like PMAWCA should mandate their member states to ensure active participation of their IT teams in technology and technical committee meetings. This is crucial considering that many African ports are facing challenges in their digital transformation initiatives.

- Funding considerations are essential for digitalization initiatives in African ports.

- Top management should be trained to understand the benefit of digital transformations.

- South-South cooperation in digital transformation for African ports is crucial.

- Africa Maritime Single Window - A Top-Down and Bottom-Up Approach

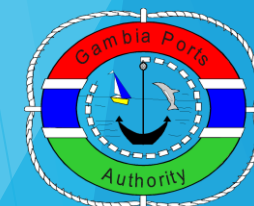Q&A

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Thank you…