

RFID
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RFID JOURNAL LIVE!

Revolutionizing the Link Between Manufacturers and Consumers with Smart Packaging

- Internet of Packaging (IoP) technologies, such as RFID, barcodes, QR codes, and digital printing, have already been understood and adopted, and are emerging with new competitive market advantages.



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EDITOR

What is Smart Packaging?

- More than the wrapper that serves to
 - Protect
 - Carry
 - Store
- Intelligent Packaging interacts with
 - Supply Chain = Smart Supply Chain
 - Consumer = Improve Customer Experience



Smart Packaging is...

- The Version 2.0+ of the Packaging
- Can be Identified and Tracked
- Ensures Authenticity
 - Origin of Products
- Improves Customer Experience
 - Electronic Product Guides or Manuals
- More Sustainable
 - Waste reduction



Smart Packaging | Benefits

*Smart Packaging can fulfill
the missing communication link
between Manufacturers / Brand Owners
and Final Consumers*



Smart Packaging | Electronic Media

- Can Smart Packaging be like a new TV channel?
 - Yes, there is technology for this
 - And it can do much more:

*An indispensable tool
to bring Brands closer
to their End Consumers
in a CUSTOMIZED way*



Smart Packaging | Technologies

- Barcodes
- QR Code | Datamatrix
- RFID
 - UHF
 - NFC
 - Bluetooth
- Digital Printing | Watermarks
- Augmented Reality



Smart Packaging | Global View

- Smart Packaging is in use for
 - Identification and Tracking
 - Authenticity Guarantee
 - Pharmaceutical and Beverage Industries
 - Improve Customer Experience
 - Food and drinks
 - Sustainability



Smart Packaging

CASES IN PROGRESS



RFID Journal Award Finalist 2022 – 1/2

- Brazilian Alpargatas
 - Brand owner of slippers Havaianas
 - Available in over 300,000 retail worldwide
 - Launched a RFID pilot in California, with Seeonic's platform
- RFID pilot results
 - Better inventory control
 - 100 percent of the SKUs
 - Sales lift of 135%, on average



RFID Journal Award Finalist 2022 – 2/2

- Lojas Renner
 - The largest fashion retailer in Brazil
 - Adopted solution from Sensormatic by Johnson Controls
- Update systems to improve
 - Inventory management
 - Replacement of products
 - Implement omnichannel strategy



Smart Packaging | Correios Brazil & UPU (1/2)

- Correios, the Brazilian Post Company, tracks packages via RFID
- Global Postal Modernization Project
 - Brazil is the international lab
 - Supported by the United Nations' Universal Postal Union (UPU)
 - Uses GS1 global standards
- Growing e-commerce demand is the basis
 - Pandemic made it grow faster



Smart Packaging | Correios Brazil & UPU (2/2)

- Brazilian E-Commerce and RFID Growth
 - Companies are adopting RFID faster than before
 - Brazilian Post Company gives discounts to RFID users
 - Pandemic effect
 - Improved e-commerce in the Country
 - Retailers focusing more on Consumer Needs
 - Omnichannel Strategies
- International RFID use growth
 - Trend is to Lower Post Costs



Smart Packaging | Havan Retail Chain

- Havan is one of the largest retail chains in Brazil
 - RFID Journal Award Winner, in 2021
- The company has 100% RFID operation, since 2020
- With iTAG RFID technology, in two years
 - Company reduced its product inventories by 30 percent
 - 500 suppliers are tagging products with RFID
 - Products are identified and tracked from Distribution Centers to all stores
 - Company has reduced costs and increased operations efficiency
 - Improved customer service and omnichannel strategy



Smart Packaging | Cemil

- Dairy company Cemil tracks supply chain with QR Codes
- SIG's Pac.Trust Solution
 - Visibility to all Supply Chain | Storage Management
 - Use of RFID tags on big boxes
- Benefit of QR Codes
 - Smartphone can access product info
 - Expiration Date
 - Origin of the milk
 - Authenticity Control



Smart Packaging | Calesita

- Toy factory adapts to customer's technological demand
 - Havan, one of the largest Brazilian retail chains
- Calesita implemented iTAG RFID in its products in order to ensure
 - Stock control
 - Supply Chain traceability
- The project target
 - Locate all Calesita's products
 - Recognize final consumer needs



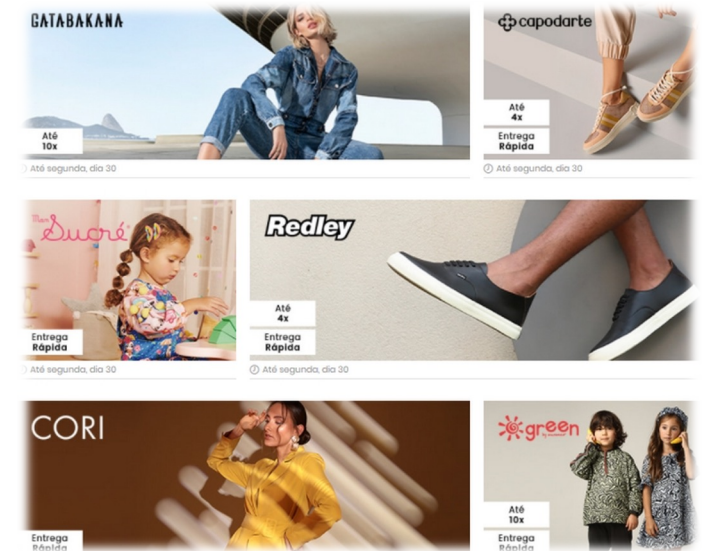
Smart Packaging | ZF Aftermarket

- Auto Parts Replacement Division
 - Avery Dennison Smartrac RFID tags
 - Smart Supply Chain
 - Speeding up processes
 - Improved performance by 18 percent
- Consumers can find parts easily
- Brazilian Distribution Center
 - Starting point to the RFID Global Project
 - 200 tons of materials circulate daily



Smart Packaging | Privalia Outlet

- Spanish outlet operates with RFID, in Brazil
- Privalia takes advantage of suppliers' smart tags to integrate with its own stock and inventory control application
- Products from Porto Brasil Ceramics and AMC Textile are tracked by iTAG RFID Solution
- The Solution gives information about
 - Consumer preferences
 - Products location



Smart Packaging | Unipac

- RFID for agricultural product authenticity
 - Ensure origin and quality of products
 - Avoid misuse of discarded packaging
- NFC security cap packaging
 - Eliminates risk that criminals reuse packaging after discarded
 - Makes product counterfeiting (almost) impossible



Smart Packaging | Cotton from Brazil

- Brazil ships world's first load of traceable cotton, in 2021
 - From Brazil to apparel factories in Vietnam
- Consumers can know the origin of their cotton apparel
 - Cotton is traced by RFID from the crop land
 - Consumers can retrieve info by smartphone using QR Code and NFC tags or Digital Printing
- ID-Cotton RFID Solution works with John Deere's machines



Smart Packaging | Lado Avesso Apparel

- Lado Avesso Brand tracks goods from factory to stores
- Fashion brand implemented iTAG RFID solution to track products on the Supply Chain
- The project follows GS1 standards, with benefits to retailers
- Company can better understand consumer behavior with RFID



Smart Packaging | Pharmaceutical Industry

- Pharmaceutical industry serializes drugs in Brazil
- Brazilian National System to Control Medicines (SNCM)
 - Focus on Product Authenticity Guarantee
 - GS1 Datamatrix technology
 - A solution similar to a QR Code
- National Health Surveillance Agency (Anvisa)
 - Monitor pharmaceutical products over supply chains
 - From manufacturing to consumption
 - Several Pharmaceutical Companies are testing the solution



Smart Packaging | HP Brasil

- Smart Packaging for Printers
- Use RFID with Digital Printing
- Improved Customer Experience
- Reduction of Prints and Potential Waste
 - Online Manuals and Instructions
- Recycling Information
 - Includes ink cartridges



HP Deskjet Ink Advantage 3700

Smart Packaging | Cachaça Roma

- NFC from Avery Dennison guarantee the beverage authenticity
- Traceability by Near Field Communication (NFC)
 - Eliminates counterfeiting risk
 - Offers security to consumer
- With NFC the company can better understand
 - Where customers are
 - Consumption habits
 - How to deliver a better product



Takeaways

- Smart Packaging is part of the Smart Supply Chain
 - Reduces Logistic Costs
- Smart Packaging improves the communication between Manufacturers and Consumers
 - Marketing, Sustainability, User's Manual...
- Technologies to be considered
 - RFID (UHF, NFC, Bluetooth), QR Code | Datamatrix, Barcodes, Digital Printing | Watermarks, Augmented Reality...



THANK YOU



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