Digital Technology for Tourism Industry

Adopting digital technology to exceed stakeholder expectation

Prepared by
Benjamin Wee

AGENDA

01 Changing Landscape in Tourism Business

Stakeholders Expectation in Tourism Business **02**

03 Age of Digital Tourism
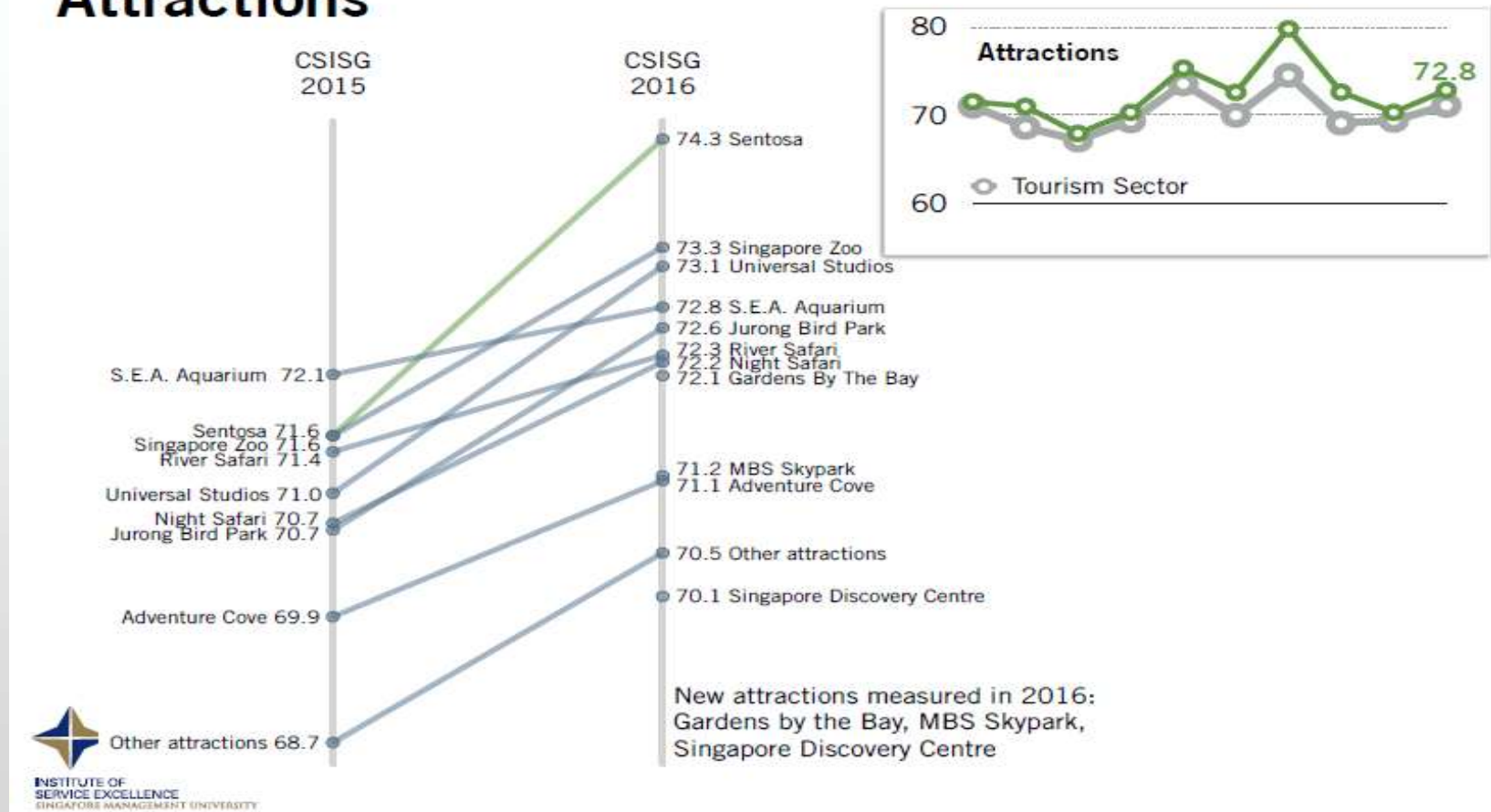
Questions & Answers **04**

1. Changing Landscape in Tourism Business

✓ Changing Customer Expectations

- A Roller-Coaster Ride?

2016 Customer Satisfaction Index of Singapore

Attractions

CSISG 2015	CSISG 2016
	74.3 Sentosa
	73.3 Singapore Zoo
	73.1 Universal Studios
	72.8 S.E.A. Aquarium
	72.6 Jurong Bird Park
	72.3 River Safari
	72.2 Night Safari
	72.1 Gardens By The Bay
S.E.A. Aquarium 72.1	
Sentosa 71.6	
Singapore Zoo 71.6	
River Safari 71.4	71.2 MBS Skypark
	71.1 Adventure Cove
Universal Studios 71.0	
Night Safari 70.7	
Jurong Bird Park 70.7	70.5 Other attractions
	70.1 Singapore Discovery Centre
Adventure Cove 69.9	
Other attractions 68.7	

Attractions — 72.8

○ Tourism Sector

New attractions measured in 2016:
Gardens by the Bay, MBS Skypark,
Singapore Discovery Centre

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1. Changing Landscape in Tourism Business
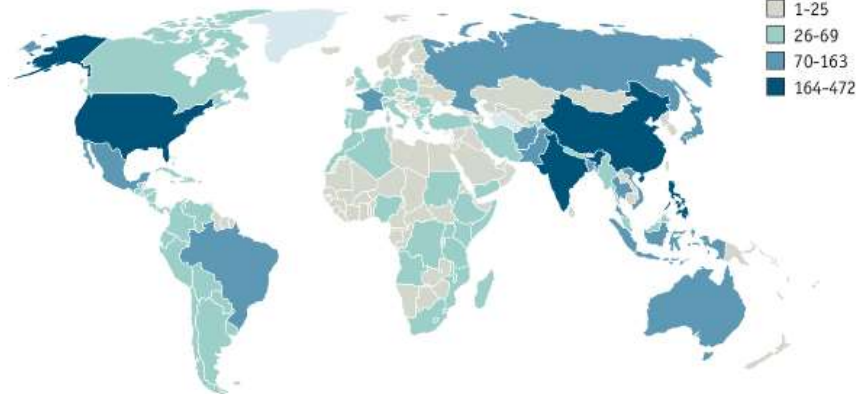
✓ Disruptive Technology/ Sharing Economy
- AirBnB, UberEat, FoodPanda, On-line Entertainment etc.

✓ Environmental Thread
- Haze in 2015 disrupted Singapore Tourism
- Typhoon Hato last month disrupted Macau Gaming Industry

Disaster zones
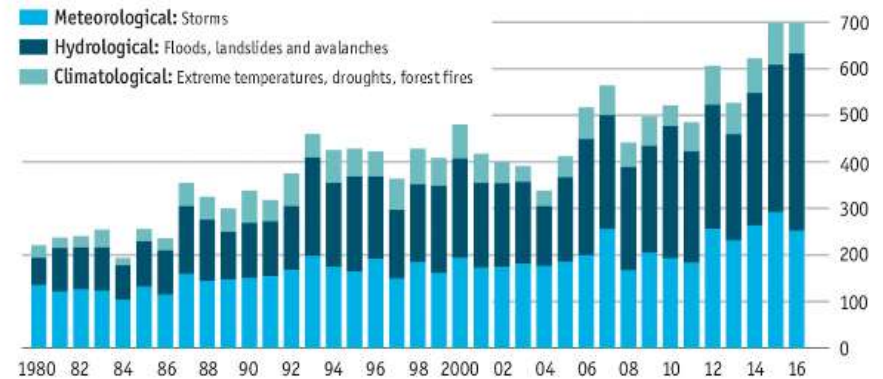Total number of natural disasters* reported per country, 1995-2015

☐	No data
☐	1-25
☐	26-69
☐	70-163
■	164-472

Source: UNISDR

*Hydrological, climatological and meteorological

Economist.com

A rising tide
Natural disasters by cause

- **Meteorological:** Storms
- **Hydrological:** Floods, landslides and avalanches
- **Climatological:** Extreme temperatures, droughts, forest fires

1980 82 84 86 88 90 92 94 96 98 2000 02 04 06 08 10 12 14 16

Source: Munich Re

Economist.com

SOURCE: ECONOMISTS

2. Stakeholders Expectation in Tourism Business

✓Knowing what customers want

2016 Customer Satisfaction Index of Singapore

2. Stakeholders Expectation in Tourism Business

✓Knowing what customers want

Impact of Attributes on Quality and Loyalty

2016 Customer Satisfaction Index of Singapore

Attractions	Hotels	Travel & Tour Services	Online Travel Agencies
Top 3 Attributes with Impact on Quality			
Ease of getting around	Hotel Facilities	Promotions and discounts	Ease of navigating
Cleanliness of attraction	In-Room Amenities	Ability to provide information and advice	Range of products available
Staff knowledge about the attraction	Efficiency of check-in/ check-out process	Ease of making reservation / booking	Information provided by website
Top 3 Attributes with Impact on Loyalty			
Food and beverage options	Efficiency of check-in/ check-out process	Ease of making reservation / booking	Promotions and discounts
Clarity of directions	Internet connectivity	Ability to accommodate to special requests	Ease of making reservation / booking
Cleanliness of attraction	Ability to accommodate to special requests		Ease of indicating special requests

2. Stakeholders Expectation in Tourism Business

✓ Aligning Business Model Canvas to targeted market segment
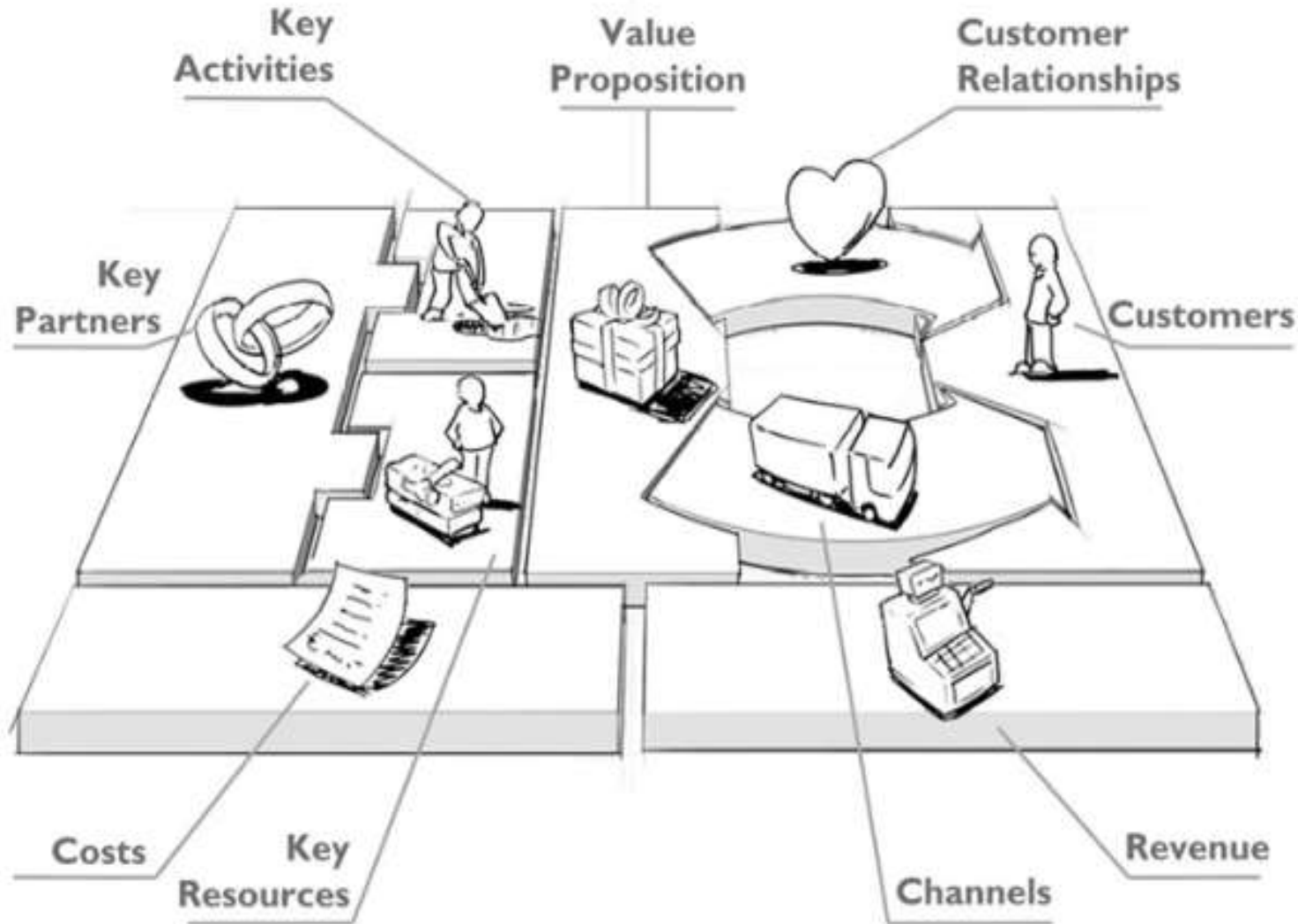
2. Stakeholders Expectation in Tourism Business

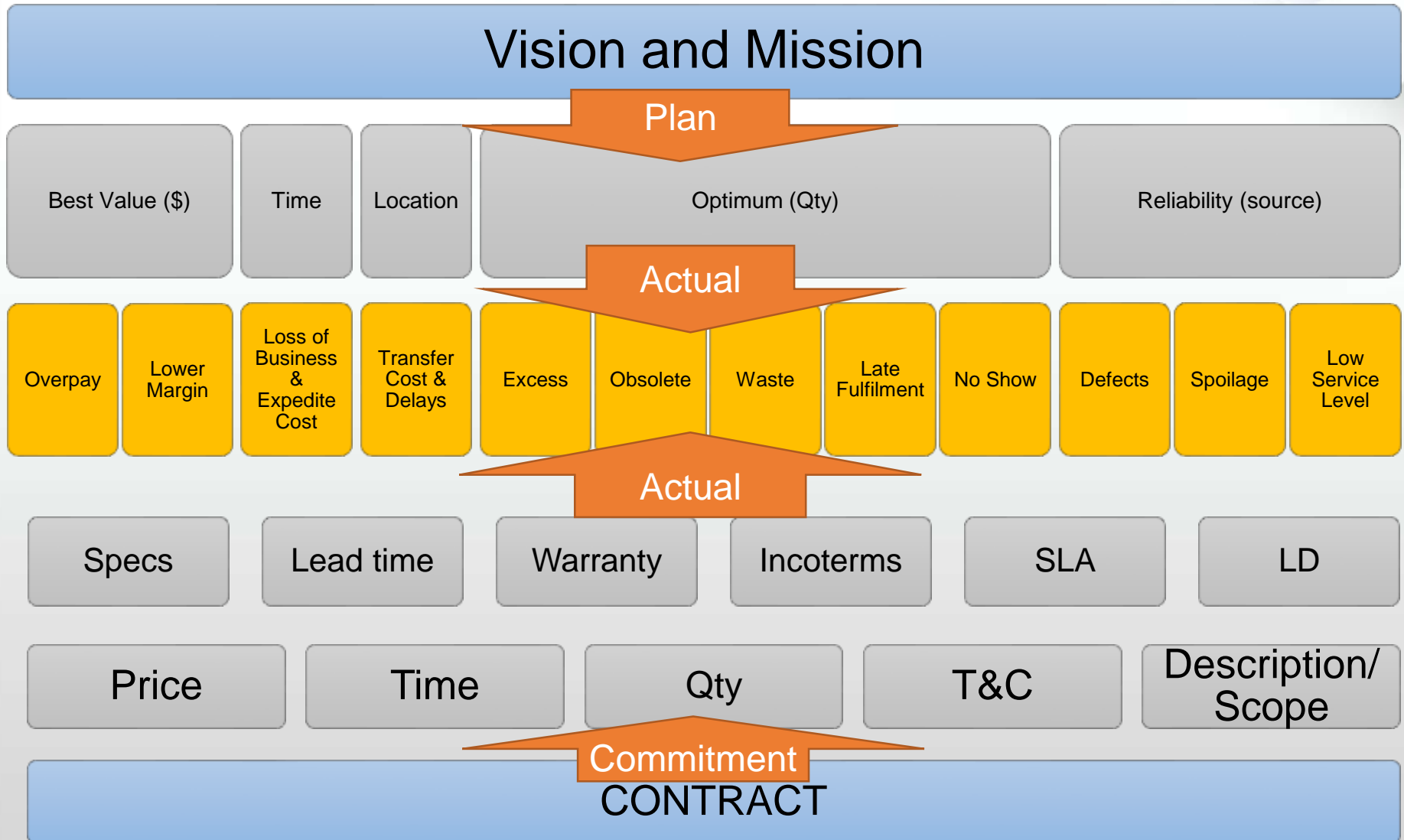✓ Internal Data Analysis for Procurement

Procurement's rule of thumb:

- To ensure **right** stuffs (specification) are purchased at:
  - ❖ The **right** quantity (optimum)
  - ❖ The **right** price (best value)
  - ❖ The **right** source (reliability)
  - ❖ The **right** time (timely) and
  - ❖ deliver to the **right** place (location).

2. Stakeholders Expectation in Tourism Business

✓ Internal Data Analysis for Procurement

Vision and Mission

Plan

Best Value ($)	Time	Location	Optimum (Qty)	Reliability (source)

Actual

Overpay	Lower Margin	Loss of Business & Expedite Cost	Transfer Cost & Delays	Excess	Obsolete	Waste	Late Fulfilment	No Show	Defects	Spoilage	Low Service Level

Actual

Specs	Lead time	Warranty	Incoterms	SLA	LD

Price	Time	Qty	T&C	Description/ Scope

Commitment

CONTRACT

2. Stakeholders Expectation in Tourism Business

✓ External Data Analysis for Procurement

3. Age of Digital Tourism

✓ Trend of Robots deployed in key industries
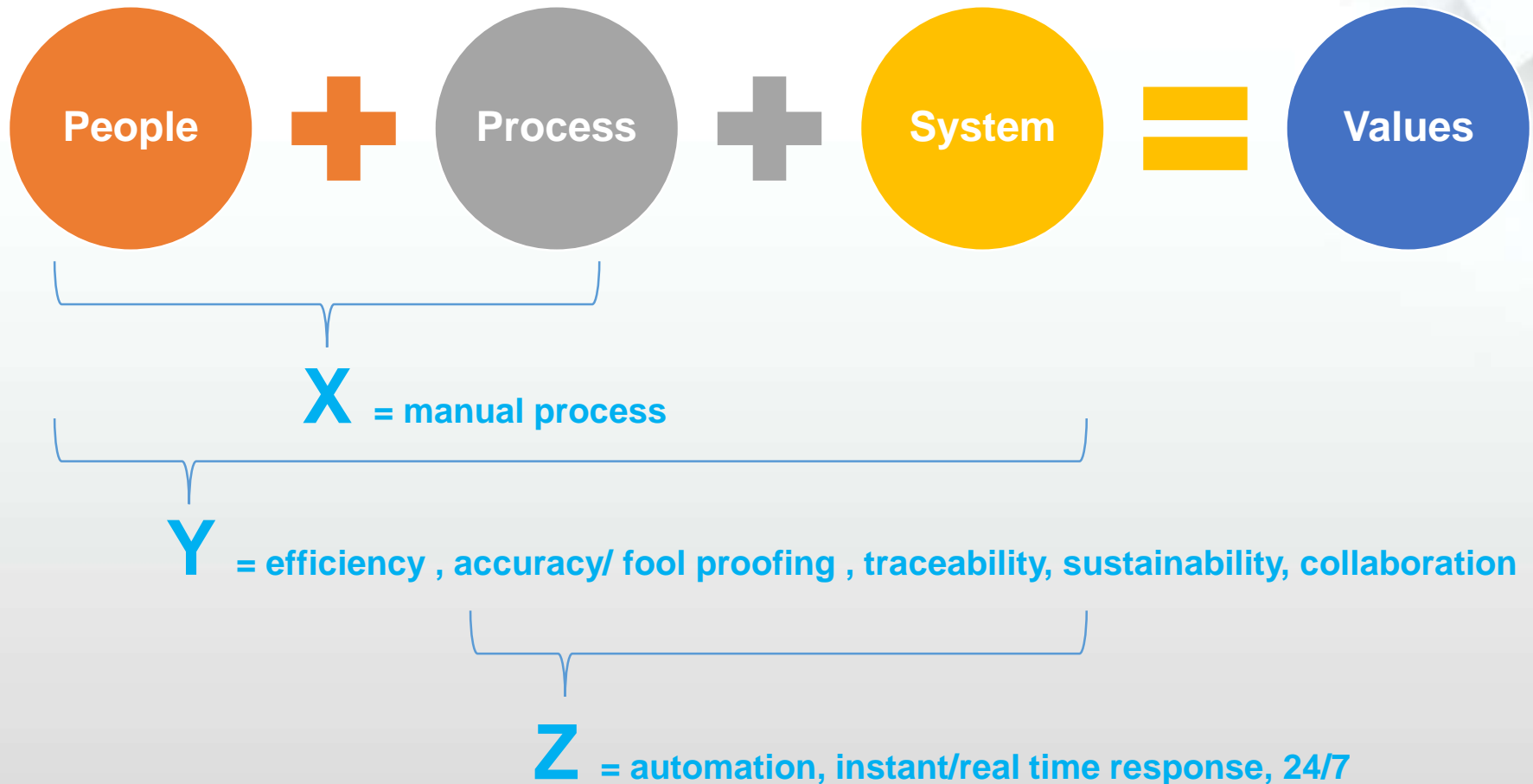 • Food industry is lagging in deployment of robots

Estimated worldwide operational stock of industrial robots at year-end by main industries 2013 - 2015
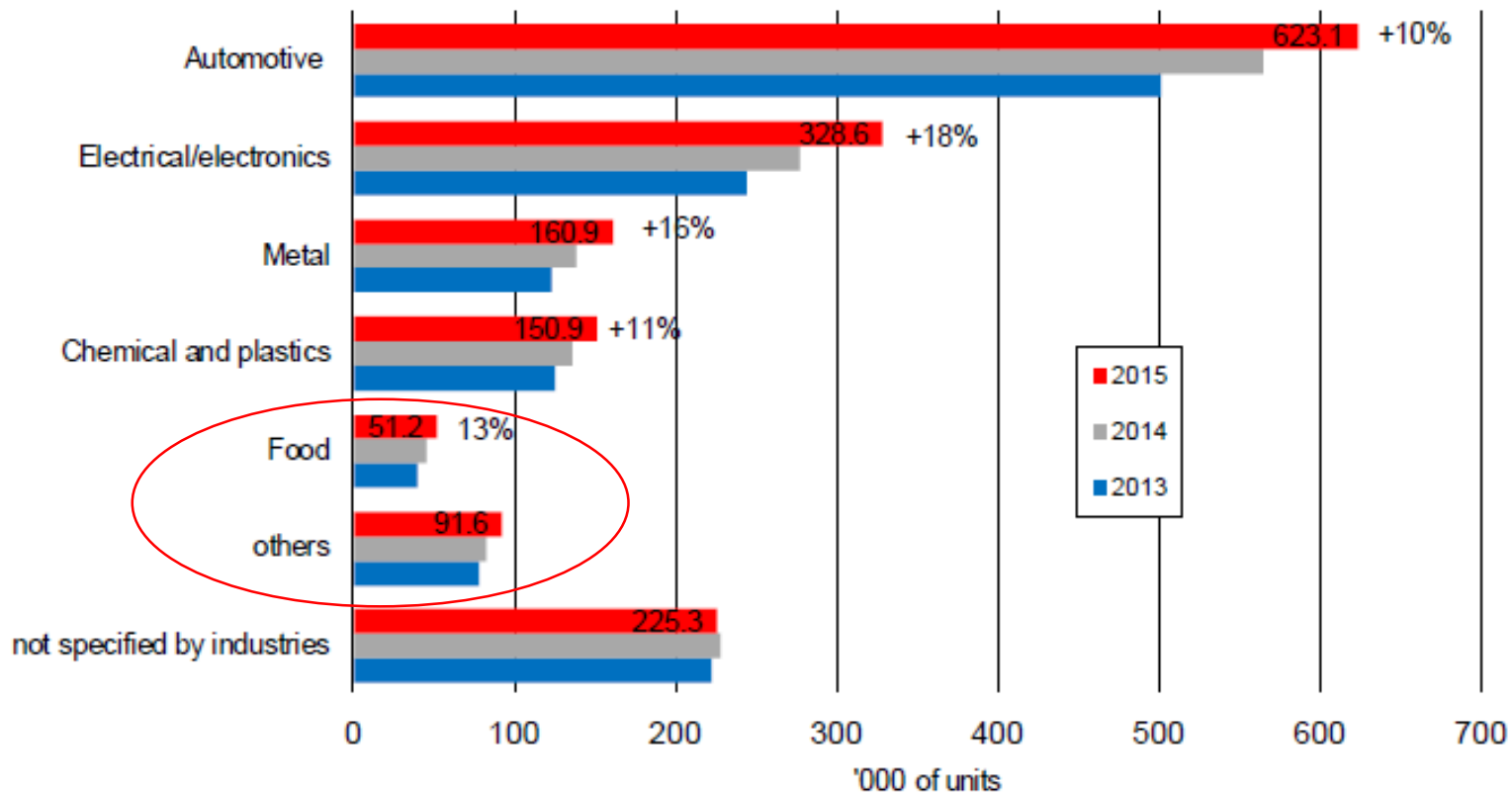
Source: IFR World Robotics 2016
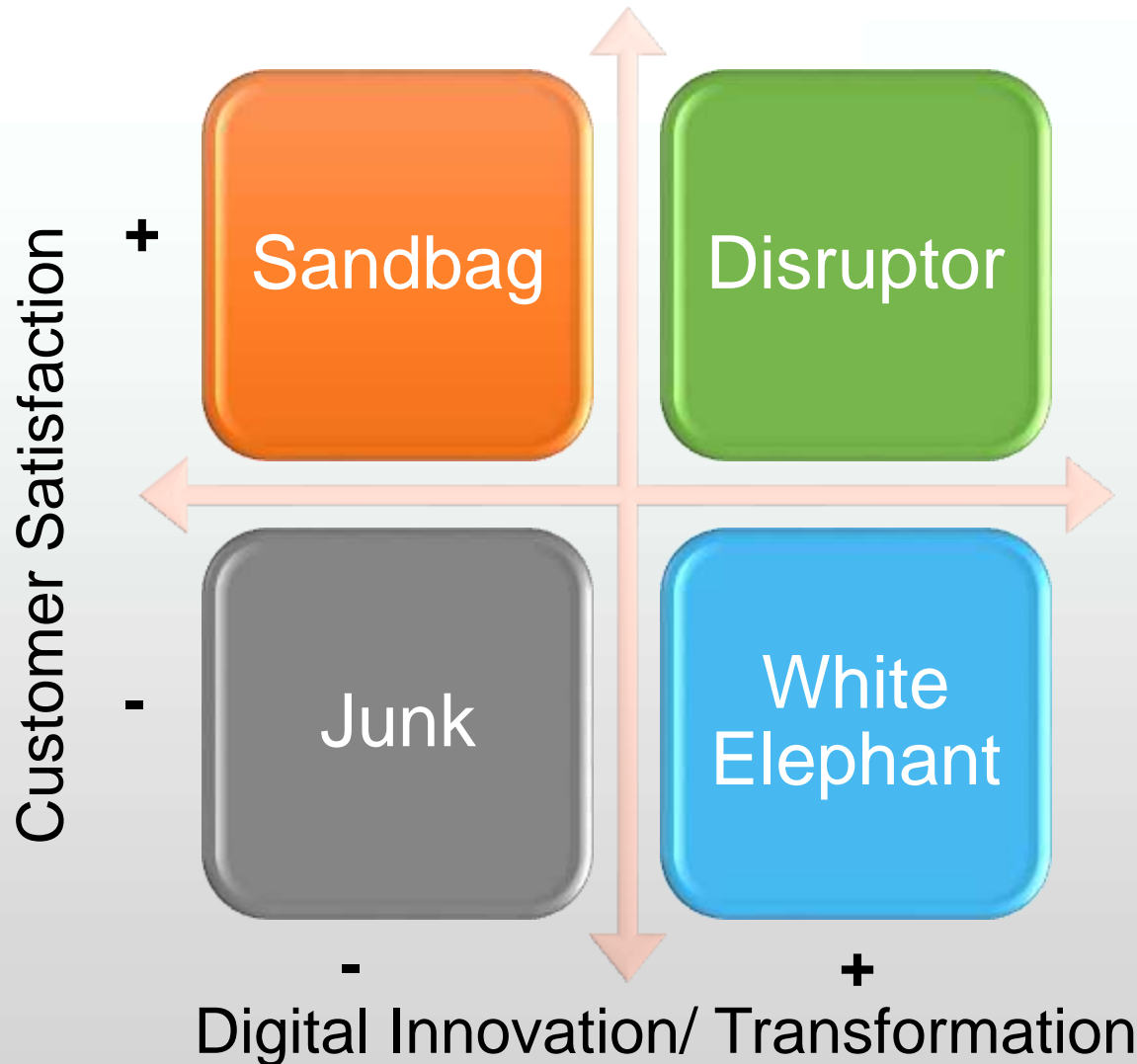
3. Age of Digital Tourism

✓ Value is a function of People, Process & System

People ➕ **Process** ➕ **System** ═ **Values**

X = manual process

Y = efficiency , accuracy/ fool proofing , traceability, sustainability, collaboration

Z = automation, instant/real time response, 24/7

Values = ∫ Quality, Cost, Time to Market, Governance/ Control, Service Level, Compliance, Market Intelligence, Revenue / Brand Driver, etc

3. Age of Digital Tourism

✓ Customer Satisfaction vs Digital Technology
  • Deploy Suitable and Sustainable technology

3. Age of Digital Tourism

✓ 3-Pillar of Digital Tourism

1. Information is Power → Responsiveness
    - Big Data & Analytics

2. Changing Experience → Quality Service
    - Virtual Reality Tour
    - Mobile Games

3. Changing Work → Productivity/ Efficiency
    - Mobility + Paperless
    - Robot + Automation
    - RFID
    - IOT Sensor
    - Cloud Solution

3. Age of Digital Tourism

✓ 3-Pillar of Digital Tourism

i) Information is Power → Responsiveness
- Big Data & Analytics
  - Integrated CRM
  - Smart scheduling
  - Lean Order Management

Track using
- Mac Address (BT, Wifi) of Mobile Device
- Biometric sensor
- Wearable device
- Infra-Red Camera

Multi-Purpose Wristband at Universal Orlando Resort's new water park
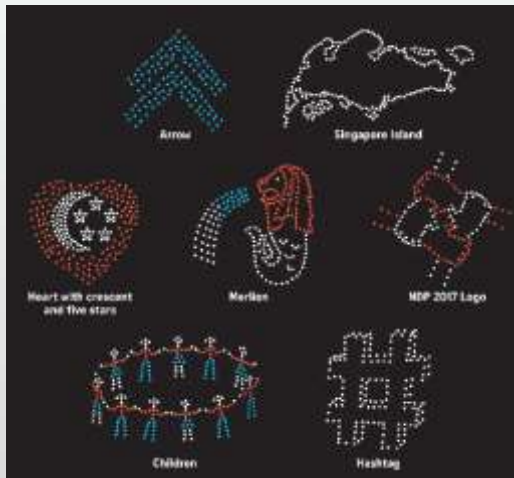
3. Age of Digital Tourism

✓ 3-Pillar of Digital Tourism

ii) Changing Experience → Quality Service
- Virtual Reality Theme Park → require much lesser landsize
- Augmented Reality Tour Guide
- Drone Dance
- Hotel Robot?

Source: Engadget

Source: Straits Times

Source: Talon Simulations

Source: Capita

3. Age of Digital Tourism

✓ 3-Pillar of Digital Tourism

iii) Changing Work → Efficiency
- RFID to track linen and uniform laundry
- IOT Sensors
  - Freight, Facilities, Park Operations
- Robot + Automation
  - Cleaning
  - RPA
  - Chatbot
  - Cashless Payment/ Self-service POS
- Cloud Solution
  - Source-to-Pay
  - Forms
- Mobility + Paperless

Key Takeaways

1. Understand Stakeholders Needs
   - Adopting technology with customer interests first
   - Human-touch is still important
   - Duty of Care – Respect Privacy, Care for Community
2. Focus on Long-term Partnership
   - Find right technology partners shared vision and roadmap
3. Sustainability
   - Beware of technology obsolescence
   - Build capability to upkeep and maintain