WIEF – SEACO FOUNDATION
Dhaka Roundtable 2019
REGIONAL COLLABORATION: TRANSFORMING ECONOMIES

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HALAL IN THE TECHNOLOGICAL AGE

By Dr Nur Rahman
CEO, Ghanim International Corporation

bruneihalalfoods

Organiser

Joint Organiser

WIEF
WORLD ISLAMIC ECONOMIC FORUM
FOUNDATION

SEACO
South East Asian Co-operation
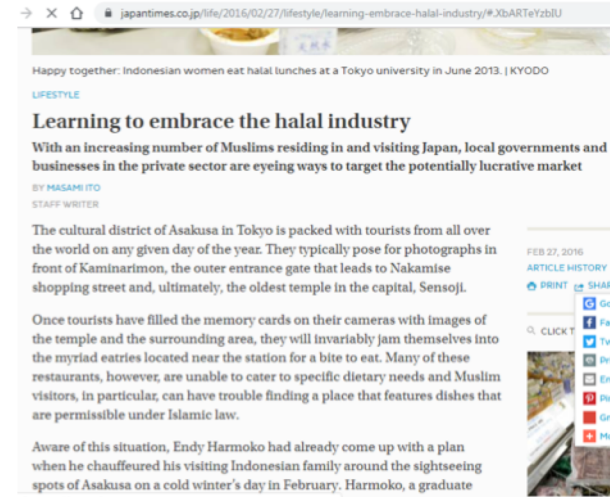**FOUNDATION**

Dynamics of Halal Food Growth

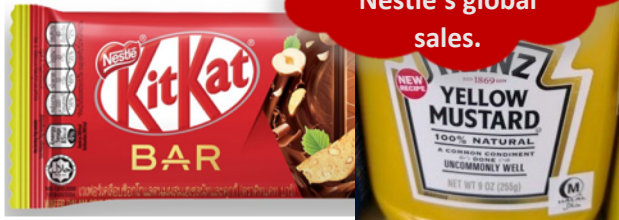Increasing awareness & understanding and perception about halal

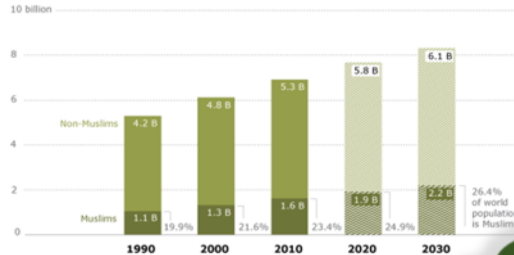Value of traceability in supply chain & food security issues

Happy together: Indonesian women eat halal lunches at a Tokyo university in June 2013. | KYODO

LIFESTYLE

Learning to embrace the halal industry

With an increasing number of Muslims residing in and visiting Japan, local governments and businesses in the private sector are eyeing ways to target the potentially lucrative market

BY MASAMI ITO
STAFF WRITER

The cultural district of Asakusa in Tokyo is packed with tourists from all over the world on any given day of the year. They typically pose for photographs in front of Kaminarimon, the outer entrance gate that leads to Nakamise shopping street and, ultimately, the oldest temple in the capital, Sensoji.

Once tourists have filled the memory cards on their cameras with images of the temple and the surrounding area, they will invariably jam themselves into the myriad eatries located near the station for a bite to eat. Many of these restaurants, however, are unable to cater to specific dietary needs and Muslim visitors, in particular, can have trouble finding a place that features dishes that are permissible under Islamic law.

Aware of this situation, Endy Harmoko had already come up with a plan when he chauffeured his visiting Indonesian family around the sightseeing spots of Asakusa on a cold winter's day in February. Harmoko, a graduate

Increasing interest from non-Muslim countries including Japan, Korea, Thailand..

Multinationals joining the halal bandwagon

Halal food accounts for about 35% of Nestle's global sales.

Growth of muslim population

Over 20% of world population is Muslim & Muslim countries are growing fast

Issues & Challenges

Traceability

Lack of value addition & innovation

Scale & capacity issue amongst halal producers – to compete with multinational

Complexity for end to end halal throughout the value chain

Risk of cross contamination

Authenticity & integrity of halal

Price, option & quality issues

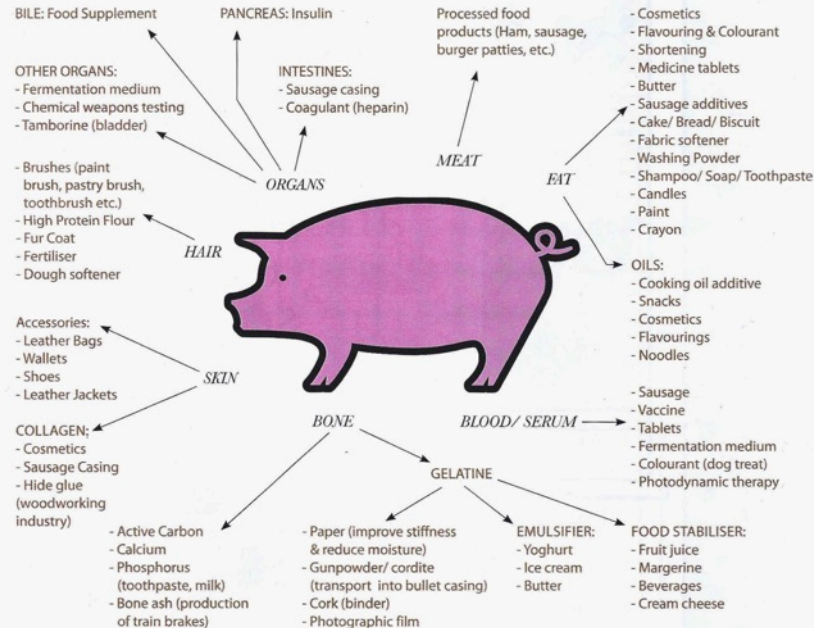Competitiveness with non-halal products

Lack of unified standard

Differing standards amongst certification bodies → Authenticity & integrity of halal

Cross Contamination Possibilities
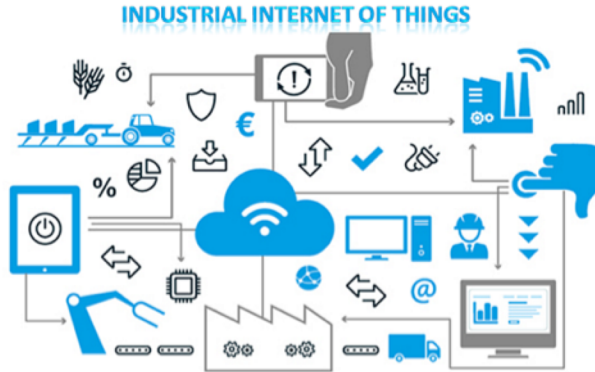

Figure 1: Some of the things you can get from a pig

Source: Molecular & Bioformatics Laboratory, Technology Park Malaysia (2009)

Cross contamination possibilities are huge with alcohol & pork products or derivatives as well as animal products from non-halal sources including gelatine, stock and fat, enzymes, emulsifiers and additives of non halal origin.

How can we protect the authenticity and integrity of halal?

Halal Industry in 4th IR

INDUSTRIAL INTERNET OF THINGS

BIG DATA
Volume · Value · Veracity · Visualization · Variety · Velocity · Virality

Big Data
One aspect of big data application in halal industry is in halal audit and inspection.

Smart Logistics
to ensure halal products are stored and moved safely and efficiently. With the right combination of technology, smart logistics can improve halal traceability, efficient route planning, and better connectivity.
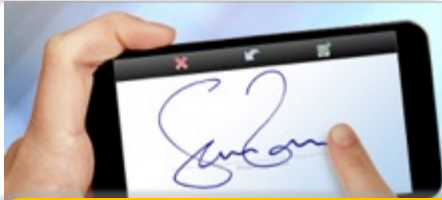
Industrial Internet of Things (IIoT)
the digitisation of halal supply chain, from farms to warehousing to food distribution and retailing to enable producers and regulators to monitor and analyse the entirety of the process

BLOCK CHAIN

Block Chain
halal authority can issue halal certificate with blockchain technology that can include production and distribution records by halal producers. Blockchained halal certificate cannot be falsified without leaving an evidentiary trail, which allows halal producers and regulators to quickly trace products back to their source, allowing for fast recall and removal in case of contamination or fraud.

Mobile Technology
Halal audit mobility, driven through smartphones or tablets, has become a game changer. Tablets with e-signature facilities can help collect and securely process voice data, images, videos, and even GPS coordinates as electronic evidence.

Advancement in Testing
Use of DNA , PCR, GCMS, HPLC, FTIR, LCMS for detection

Brunei in Halal Food Industry Today

bruneihalalfoods

Government linked company tasked to spearhead the development of the food industry

To be an **iconic halal brand** in the world that excels through **innovation** and **virtue**

Brunei Darussalam's stringent and government-backed halal certification process is highly regarded globally.

BRUNEI HALAL

Export Market

CHINA

SINGAPORE

AUSTRALIA

JAPAN

MIDDLE EAST

Gulfood INNOVATION AWARDS 2017 WINNER

Partnership with over 18 SMEs

Multiple product categories