

Moving from the Halal Value Chain to the Halal Value Exchange Network: Establishing a Halal Business Ecosystem

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Agenda

- Halal market, halal industry, halal food industry
- Halal Value Chain & Halal Supply Chain
- Halal Business ecosystem
- Modeling Halal Business Ecosystems
- Cases on halal business ecosystems
- Halal Hub, Halal Park and HBE
- Halal Digital Marketplace
- Conclusion

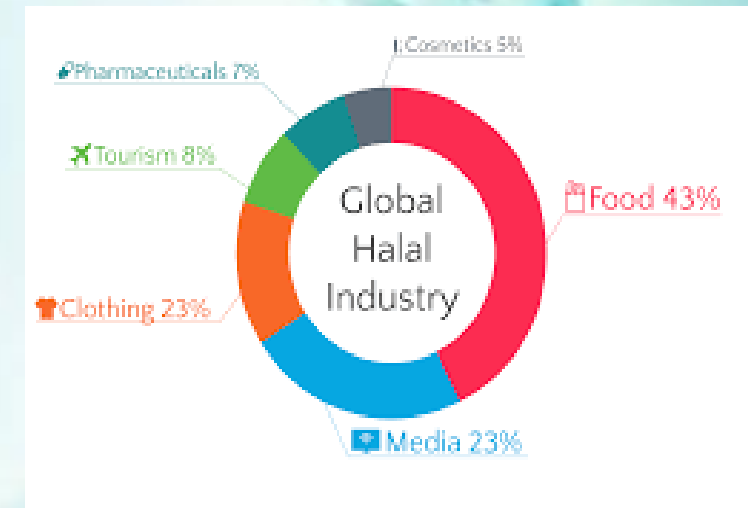
Halal Market

- The global halal market is enormous as the Muslim population hits 25% of the global population with 2 billion people in 2023 (Global Muslim Population, 2023).
- The value of the halal market was USD 7.2 trillion in 2020. With a growth of 5.6% yearly, the overall halal market is predicted to hit USD 11.2 trillion in 2028! (Adroit Market Research, 2021)
- Being the largest Muslim country with a Muslim population of more than 237 million people in 2023, the Indonesian halal market is lucrative. As such, the halal industry in Indonesia is growing fast, ranging from food and beverage to pharmacies, apparel and hospitality businesses.
- The demand for halal products and services in Indonesia is continuously growing and is expected to reach USD 619.47 billion by the year 2029, with food and beverage being the prominent segment (Data Bridge, 2022).



Halal Industry

- The halal industry comprises many segments:
 - Food and beverage
 - Islamic Finance and Banking
 - Pharmaceutical, Cosmetics and Dietary Supplements
 - Fashion
 - Personal Care
 - Tourism, Travel and Hospitality
 - Media and Recreation



Halal Food in Indonesia

- This talk focuses on halal food in Indonesia.
- Indonesia is the largest Muslim country in the world (237 million, 12.5% of the world's Muslim population).
- Food and beverage industry has contributed 38.42%, the largest contribution to the growth of the Indonesian non-oil and gas manufacturing industry, and 6.66% to the gross domestic product (GDP) (Antara, 2021)
- Food and beverage industry is a leading non-oil and gas manufacturing sector, significantly contributing to economic growth.

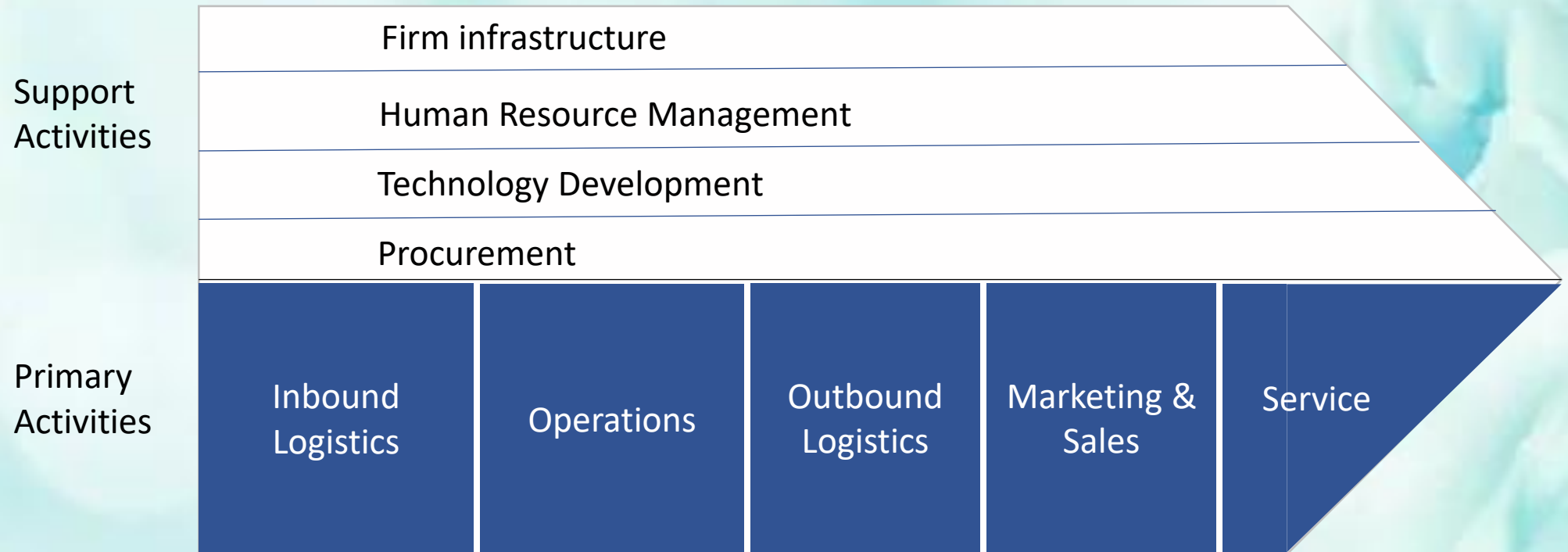


Halal Food Industry

- MUI initiated a halal certification project in 1991.
- It took 23 years for the government and parliament to issue the law on Assurance of Halal Products (Republic Indonesia Law No. 33, 2014).
- The law created a new institution called “Badan Penyelenggara Jaminan Produk Halal” (BPJPH). BPJPH now issues halal certificates in collaboration with MUI.
- The core of the halal food industry is food manufacturing industry that produces halal foods and beverages.
- However, halal food industries require raw and supporting materials and ingredients that must be halal-certified. In addition, industrial processes that include processing tools and equipment, packaging material, warehouse, and transportation must comply with the halal assurance system.



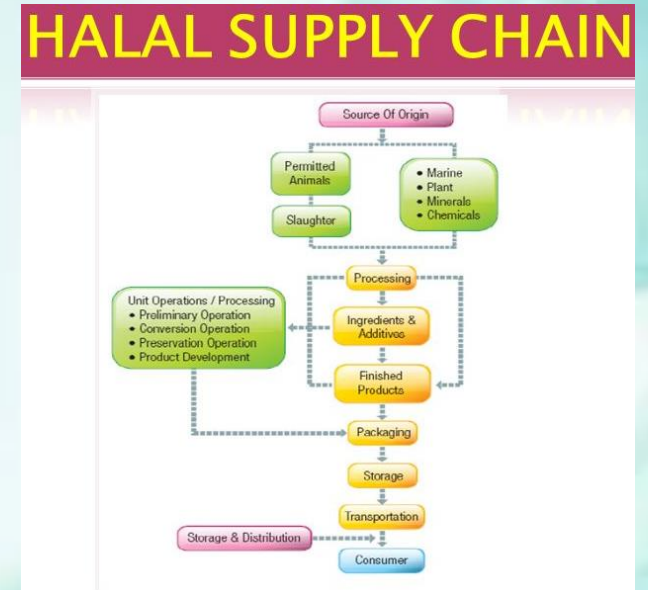
Halal Value Chain



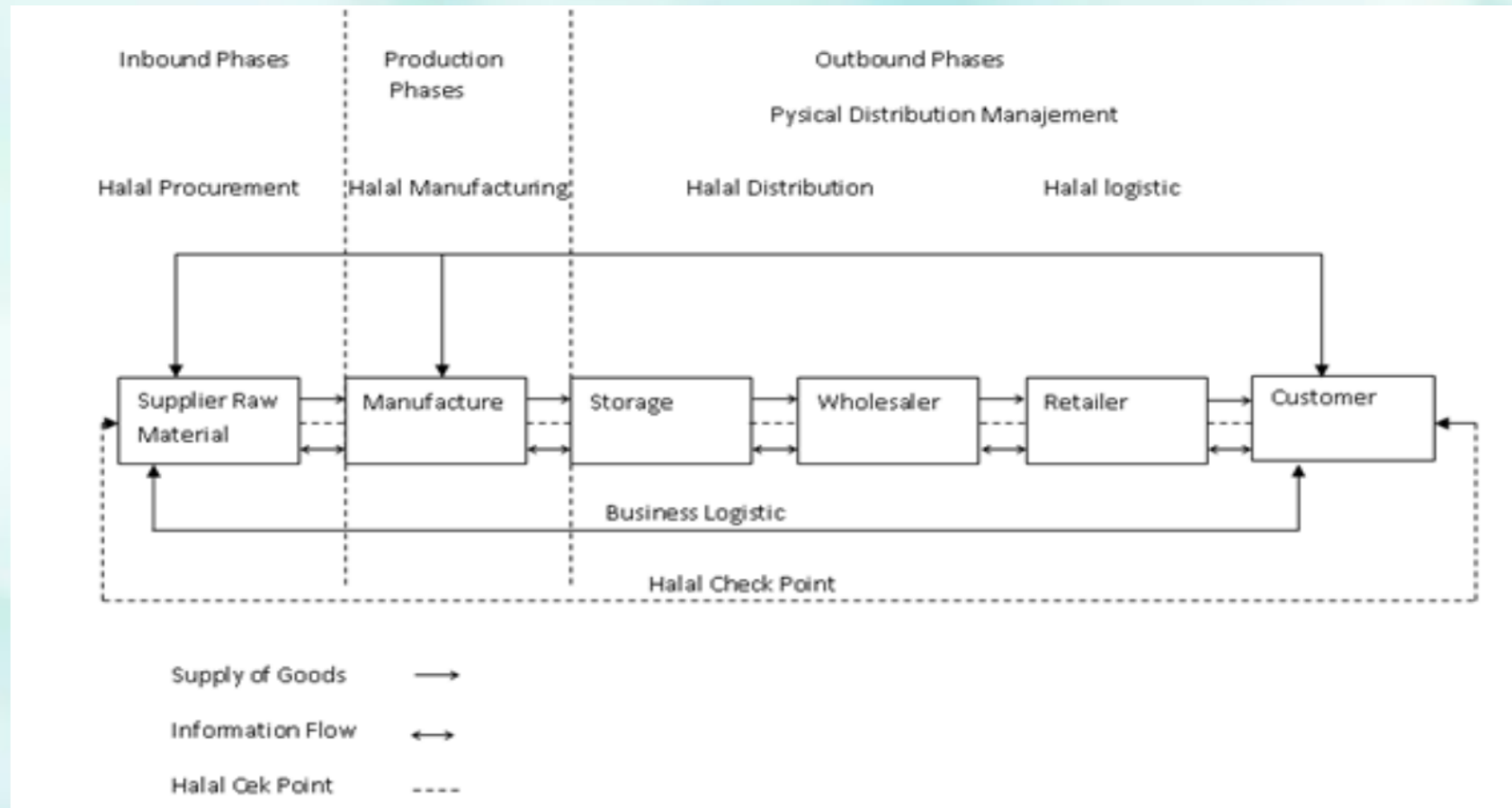
This value chain must be guaranteed halal to integrate **halal value** into products/services.

Halal Supply Chain

- A product's supply chain refers to a series of interconnected processes that transform raw materials into the finished product and ensure delivery to the end consumer.
- In the case of the food industry, this supply chain is specifically designed to outline the journey of food production, starting from the acquisition of raw materials on the farm, through food processing, and ultimately reaching the consumer.
- The halal supply chain ensures that products are produced, stored, transported, and delivered per Islamic law. It has to ensure the complete integrity of halal compliance throughout the entire supply chain.

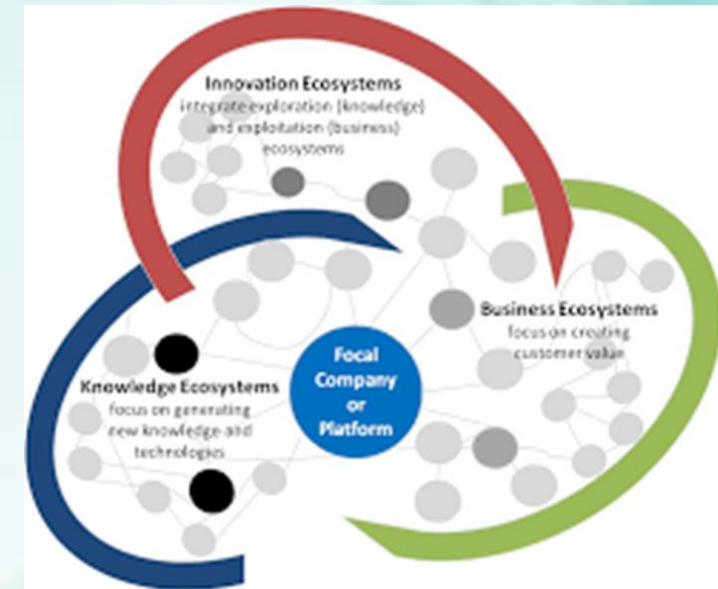


Halal Supply Chain



Business Ecosystem

- Business ecosystem is a concept to describe that a firm is interconnected and interacts with other firms or business actors in producing value to satisfy customer needs (Moore, 1993,1997).
- Any firm exists within its business ecosystem.
- A firm interacts and exchanges values with other entities in its business ecosystem for mutual benefits (Almunawar, 2019, 2020).
- An ecosystem leader or keystone is one that controls the exchange of values among entities in the ecosystem.
- **Halal Business Ecosystem?**



Modeling Business Ecosystems

- A business ecosystem is a network of interconnected and diverse entities/actors that collaborate to exchange value for mutual benefits.
- Halal business ecosystem has core and supporting constituents, comprising of interacting and transacting actors exchanging values.
 - Examples of entities in the core constituent are suppliers, producers, consumers, the halal certificate agent, and halal auditors.
 - Examples of entities in supporting constituents such as halal or Islamic financial institutions, education institutions that provide halal research and training centers and halal curricula.
 - These entities engage with one another by exchanging set of values through interactions and transactions.



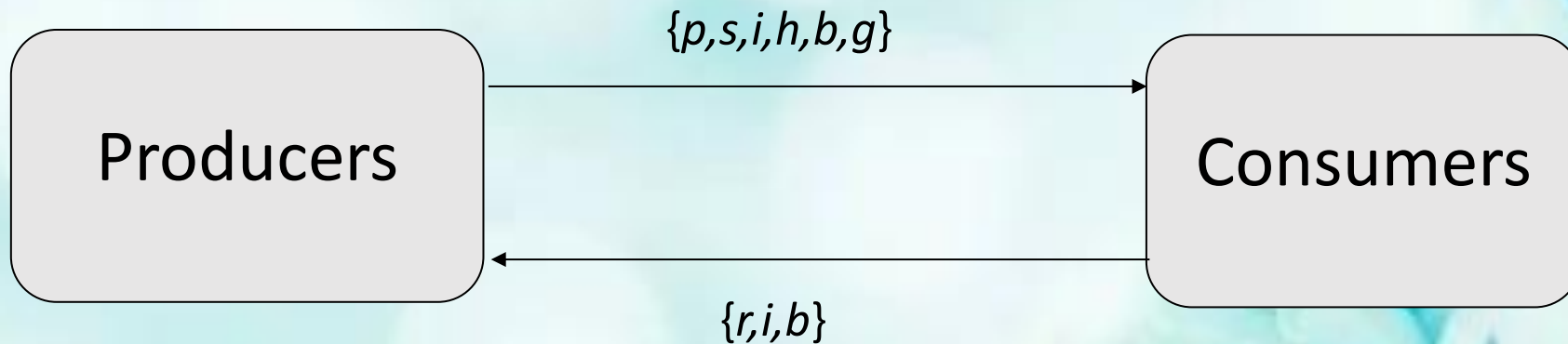
Value

- Every entity belonging to the core or supporting constituents has a set of values.
- These values are
 - product (p), a product(s) offered by a producer
 - service (s), a service offered by an actor
 - revenue (r) is monetary or non-monetary value generated during a transaction,
 - **halal value (h)** is a certified halal belongs to a product or service
 - data/information/knowledge (i), data, information or knowledge belong to an actor
 - intangible value (b) like convenience, trust, satisfaction
 - **religious value (g)**, value of executing Allah's commands.
- Each value above has a negative counterpart that has an opposite effect. For example, a negative product is a fake product, and the negative of halal is haram, which is a forbidden value in Islam.



Value Exchange

Two entities in a halal ecosystem interact or transact by exchanging their values.

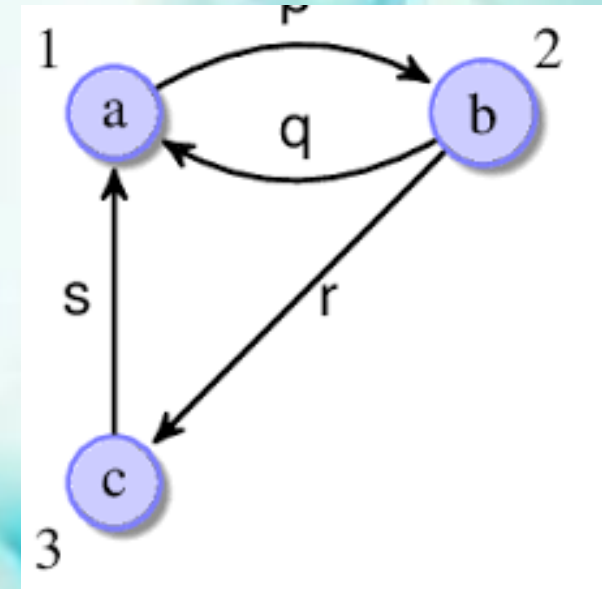


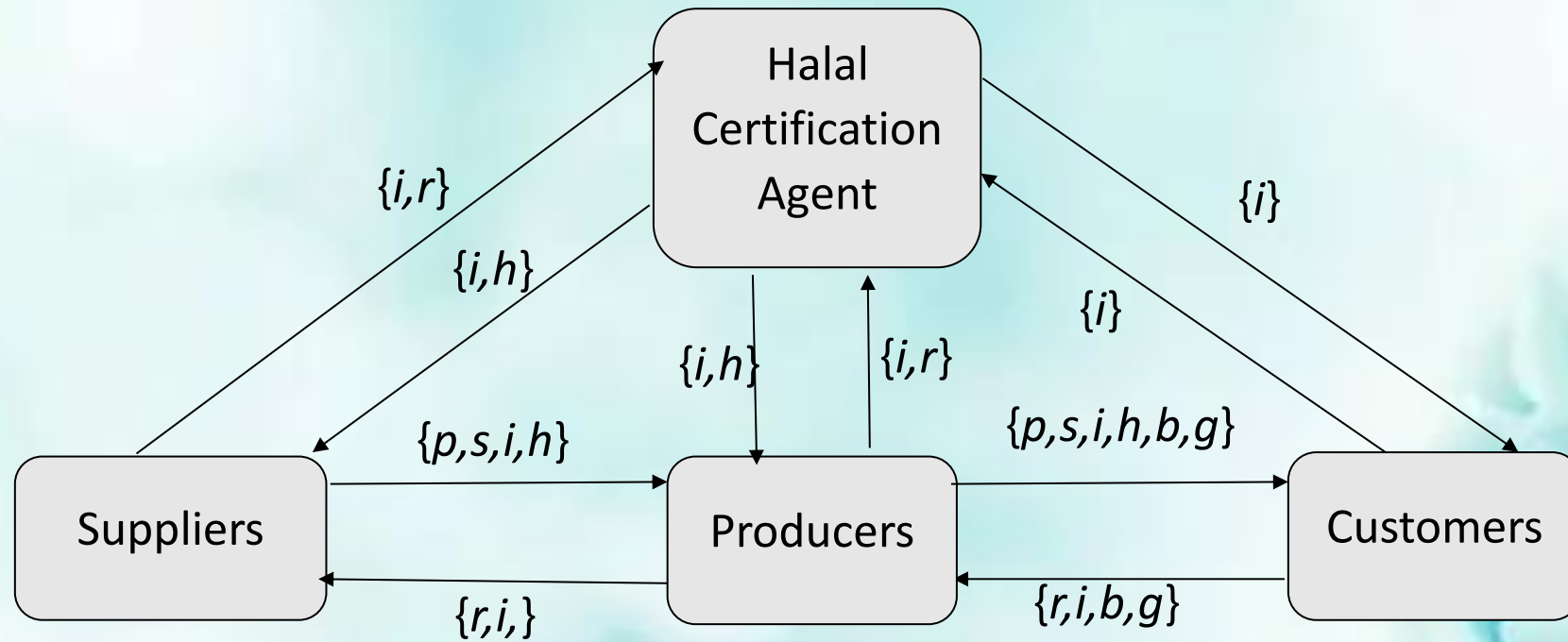
Halal Entity & Halal Business Ecosystem

- *Definition 1.* An actor or entity is called a halal actor/entity if it produces or offers halal value.
- *Definition 2.* A halal business ecosystem is a network of value exchanges where the halal value exchange is guaranteed, and no negative value is exchanged in the ecosystem.
- A halal business ecosystem is formed if more than two actors interact or transact by exchanging halal values. There must be an actor that can guarantee the halal value exchanged in the ecosystem and no negative halal value or haram exchanged in the business ecosystem.

Modelling Business Ecosystem

A business ecosystem is modelled as a connected directed graph $G(N,E)$ where N is a finite non-empty set of symbols representing entities in the ecosystem ($N \geq 3$) and E is a set of edges labelled by a set of values. An edge represents a relationship between the two entities.





A simple halal business ecosystem

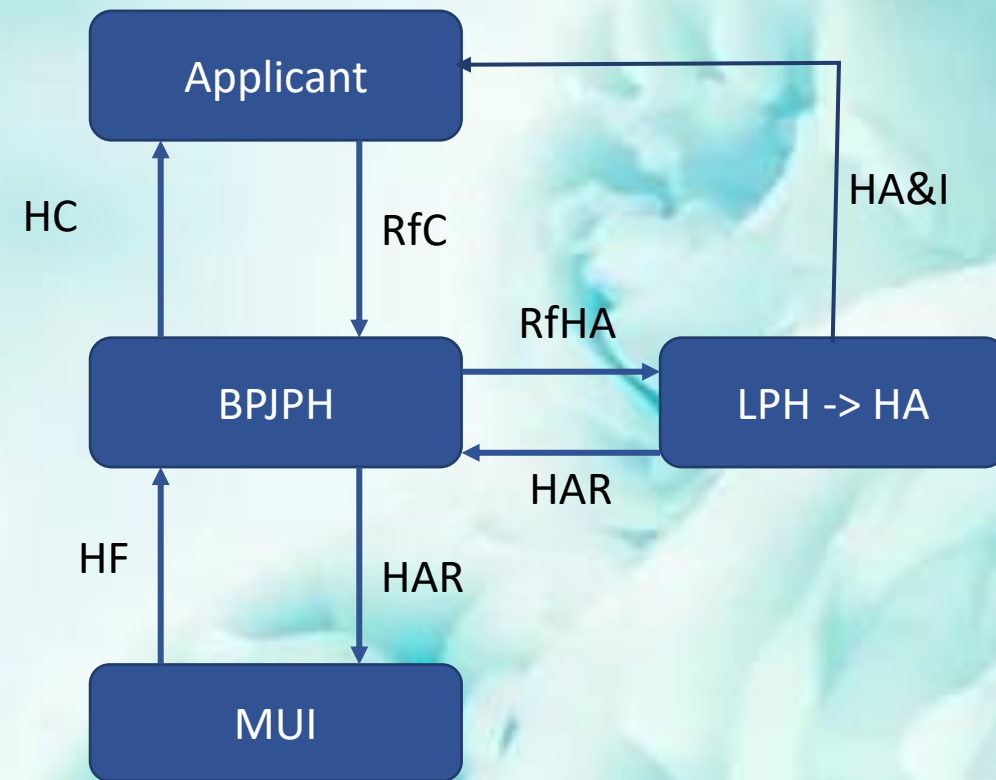
Actors	HCA	Suppliers	Producers	Consumers
Halal Certification Agent (HCA)	-	{i,h}	{i,h}	{i}
Suppliers	{i,r}	-	{p,s,i,h}	{}
Producers	{r,ik}	{r,i}	-	{p,s,i,h,b}
Consumers	{i}	{}	{r,i,b}	-

Compulsory Entities in Indonesian Halal Certificates

- **BPJPH** (Badan Penyelenggara Jaminan Produk Halal). The institution that issue halal certificates
- **MUI**. Through its Fatwa Commission, MUI is responsible for examining recommendations to issue a halal fatwa. Once MUI has issued a halal fatwa for a product, BPJPH can issue a halal certificate.
- **Institution for Halal Assessment (LPH – Lembaga Pemeriksa halal)**. LPH is an organization that assesses a product's compliance with halal standards. It is important to note that an LPH must receive accreditation from BPJPH.
- **Halal Auditor (HA)**. HA is an individual with expertise in evaluating the halal compliance of a product. HAs working for an LPH must be certified by MUI, and each LPH must have at least three certified HAs.
- **Halal Supervisor (PH – Penyelia Halal)**. A PH is responsible for overseeing the halal processes within a company. A PH collaborates with an HA in the halal certification process and the maintenance of halal procedures.

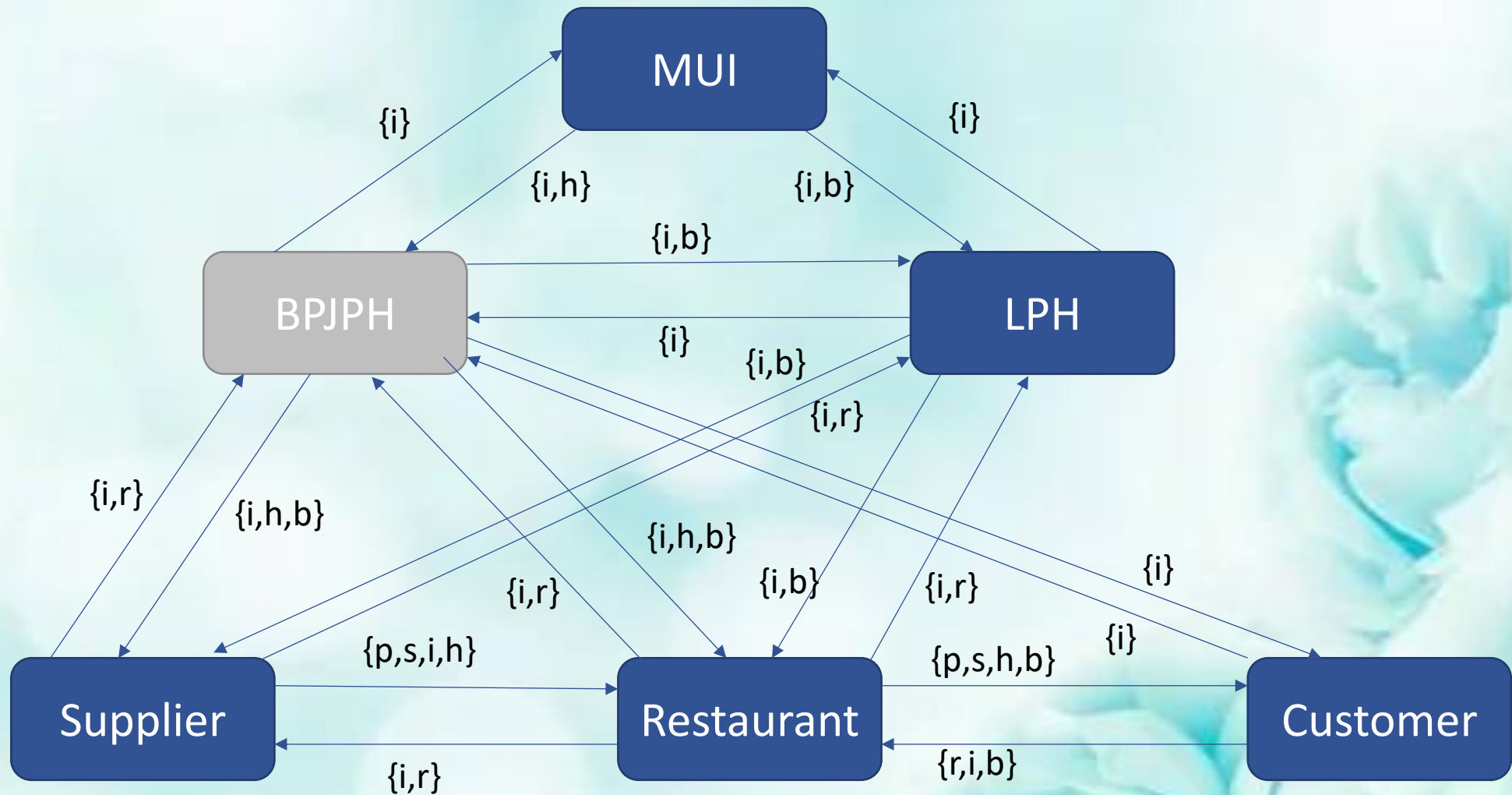
Halal certification process

- Certifying a product begins with submitting a formal certification request to BPJPH.
- BPJPH then designates an LPH to evaluate the product's compliance with halal standards.
- The LPH, in turn, assigns HA(s) to carry out the assessment. After the assessment is completed, the LPH submits the assessment findings to BPJPH, which forwards the results to MUI to issue a halal fatwa.
- The fatwa is returned to BPJPH, which then issues a halal certificate for the product.



Case 1: Halal Business Ecosystem of Restaurants

- Restaurants, either traditional or fast-food, are the main food outlets for ready-to-serve food and beverages.
- The core HBE of restaurants has at least 8 actors: Restaurants (R), Suppliers (S), Customers (C), BPJPH, MUI, and LPH.
- Since HA is a part of LPH, only LPH will be shown in the ecosystem as an entity/actor.
- There are other actors, such as Banks or Fintech, for making payments. However, these actors will not be included in this case for simplicity.
- A halal business ecosystem is a specialized business ecosystem in which an entity generate halal value (through halal certification) to be exchanged in the ecosystem and no negative halal value or haram exchanged in the business ecosystem.

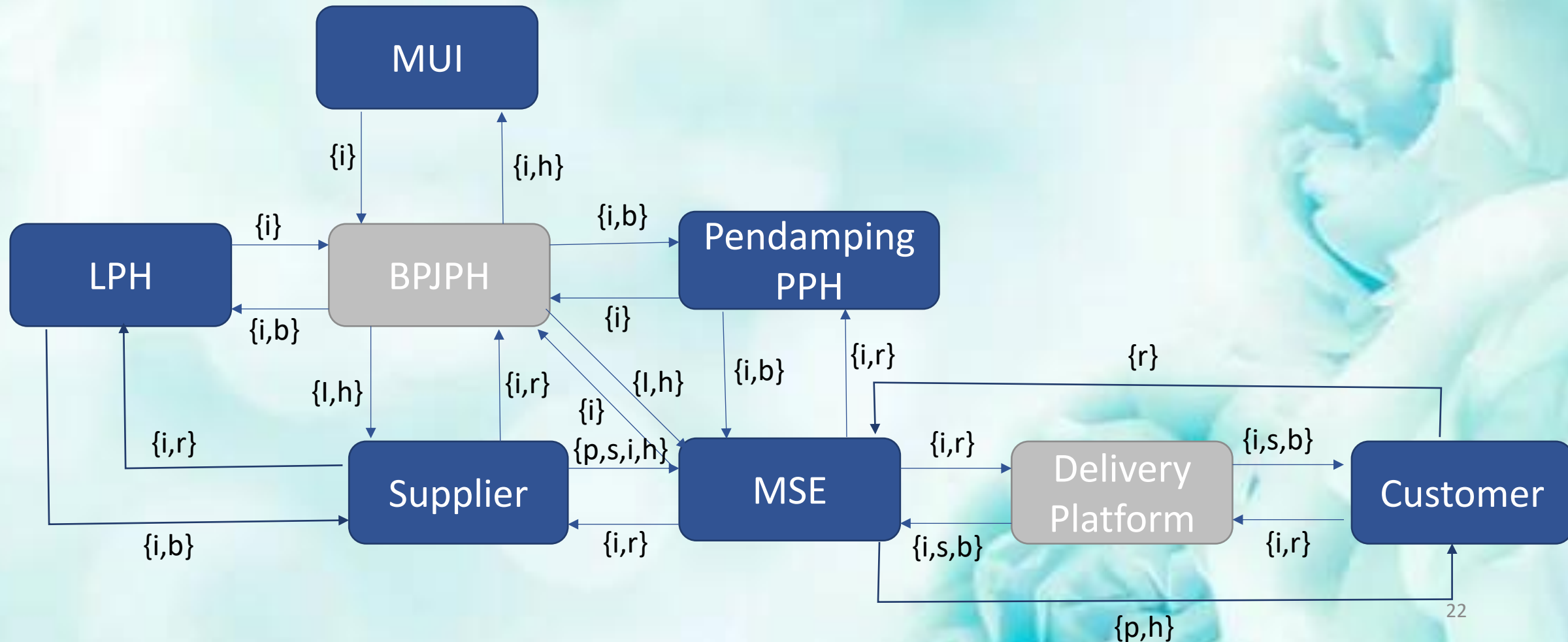


Halal Business Ecosystem of Restaurants

Halal Business Ecosystem of Restaurants

Actors	R	S	C	BPJPH	MUI	LPH
R	-	{i,r}	{p,s,h,b}	{i,r}	{}	{i,r}
S	{p,s,i,h}	-	{}	{i,r}	{}	{i,r}
C	{r,i,b}	{}	-	{i}	{}	{}
BPJPH	{i,h,b}	{i,h,b}	{i}	-	{i}	{i,b}
MUI	{}	{}	{}	{i,h}	-	{i,b}
LPH	{i,b}	{i,b}	{}	{i}	{i}	-

Case 2: HBE of Micro and Small Enterprises (Self declare) with Food Delivery Platforms



The Core Nation HBE

Actors	BPJPH	MUI	LPH	S	P	C
BPJPH	-	{i}	{i,b}	{i,b,h}	{i,b,h}	{i}
MUI	{i}	-	{i,b}	{}	{}	{i}
LPH	{r,b}	{}	-	{i}	{}	{}
Supplier (S)	{i,r}	{}	{i}	-	{p,i,h,s}	{}
Producers (P)	{i,r}	{}	{i}	{i,r}	-	{p,h,i,b}
Consumers (C)	{i}	{}	{}	{}	{i,r,b}	-

An Extended National HBE

Actors	BPJPH	MUI	LPH	S	P	C	U	HBI	REG	HC	HTA	HSA	IF
BPJPH	-	{i}	{i,b}	{i,b,h}	{i,b,h}	{i}	{i}	{i}	{i}	{i}	{i}		{}
MUI	{i}	-	{i,b}	{}	{}	{i}	{i}	{i}	{i}	{i}	{i}		{}
LPH	{r,b}	{}	-	{i}	{}	{}	{i}	{i}	{}	{i}	{i}		{}
Supplier (S)	{i,r}	{}	{i}	-	{p,i,h,s}	{}	{i}	{i}	{}	{i}	{}		{i,r}
Producers (P)	{i,r}	{}	{i}	{i,r}	-	{p,h,i,b}	{i}	{i}	{}	{i}			{i,r}
Consumers (C)	{i}	{}	{}	{}	{i,r,b}	-	{i}	{}	{}	{}			{i,r}
U	{i}	{}	{}	{i}	{i}	{i}	-	{i}	{i}	{i}			{i}
HBI	{i}	{}	{}	{}	{i}	{i}	{i}	-	{}	{i}			{}
REG	{i}	{i}	{i}	{i}	{i}	{i}	{i}	{i}	-	{i}			{i}
HC	{i}	{}	{i}	{i}	-	{i}	{i}	{i}	{}	-			{i}
HTA	{i}	{i}	{i}	{i}	{i}	{}	{i}	{i}		{i}	-	{i}	{}
HSA	{i}	{i}	{i}	{i}	{i}	{}	{i}	{i}		{}	{i}	-	{}
IF	{i,r}	{i}	{}	{}	{}	{i}	{}	{}	{i}	{i}			-

Supporting actors are universities (U), Halal Business Incubators (HBI), Regulators (REG), Halal Consultants (HC), Halal Certification Training Agent (HTA), Halal Support Agent (HSA), Islamic finance/banks (IF).

Some features of the model

- It is a simple framework to study a business ecosystem.
- It can construct or map the existing halal ecosystem for observation or study.
- It can be used to design a halal business ecosystem.
- It be used as a tool to expand a business ecosystem.

Halal Hub, Halal Park and HBE

- **Halal Hub:** A centralized location for exchange of halal goods and services.
- **Halal Park:** A community or network of manufacturing and service industries located within a common territory, aimed at preserving the integrity of halal products and services while improving the economic performance of participating companies.
- **Halal Business Ecosystem:** A network of value exchange where halal value is preserved and no haram value is exchanged across the network.

Halal Digital Marketplace

- A digital platform that serves as the keystone for a halal business ecosystem.
- It connects all actors and participants in the halal business ecosystem digitally.
- As a value exchange network for multi-sided markets, it facilitates the trade of halal goods and services.
- The platform should ensure efficient value exchanges among all participants within the ecosystem.
- B2B and B2C halal digital marketplaces.

Conclusions

- Halal value (h) is a certified halal status belonging to a product or service.
- An actor or entity is called a halal entity if it produces and offers halal value.
- Each entity has a set of values to be offered. Value exchange happens if two entities exchange their values.
- Three or more entities can form a network of value exchange. A business ecosystem is a network of value exchange.
- A halal business ecosystem is a network of value exchange where the halal value exchange is guaranteed, and no negative value is exchanged in the ecosystem.

Contributions and Future Work

- This work has contributed to many manifolds. 1. it clearly defines the halal business ecosystem, 2. it constructs a model of the ecosystem as a network of exchange values. 3. The model can be used to map the existing halal business ecosystem, provide a simple way to identify weaknesses of the existing ecosystem introduce a new actor to mitigate the weaknesses. 4. The model can be used to construct an ecosystem and lay down future expansion.
- Despite the model's apparent strength and expressive power, some limitations are identified. The model emphasizes the structure of a business ecosystem. Although the main behavior of actors in the ecosystem is captured through the exchange value, many behaviors of actors cannot be captured using the model. Next, the model does not provide a way to manage or govern a halal business ecosystem; hence, a separate model will be used for such a purpose.
- Future directions should address the following issues: (1) Applying the model to investigate the existing halal business ecosystems (2) Developing halal business ecosystem governance (3) Apply the model to other halal businesses such as halal tourism (4) Investigating value, how value can be measured and quantified (5) Measuring the health and sustainability of a halal business ecosystem (6) Incorporating the concept of Halal Hub. Is Halal Hub a HBE?

Terima kasih