



# HALAL LIFESTYLE: INSIGHTS ON ENHANCING SKILLS IN THE PHILIPPINE HALAL FOOD INDUSTRY

---

LABOR MARKET INFORMATION | 2023

**TABLE OF CONTENTS**

I.	Background	2
II.	Objectives	6
III.	Attendees	6
IV.	The Highlights of the Results	7
	4.1. Presentation of the Industry Situationer	7
	4.2. Challenges and Opportunities	8
	4.3. Technical Skills Requirements	11
	4.4. Identified Priority	12
	4.5. Soft Skills and Skills Related to the 4IR	21
	4.6. Possible Training Provider	22
	4.7. Other Sectors/Sub Industries that will be affected	23
V.	Mapping of Skills Requirements vis-à-vis Existing TR	23
VI.	TVET Capacity	26
VII.	Way Forward	27
VIII.	Annexes	30
IX.	References	45

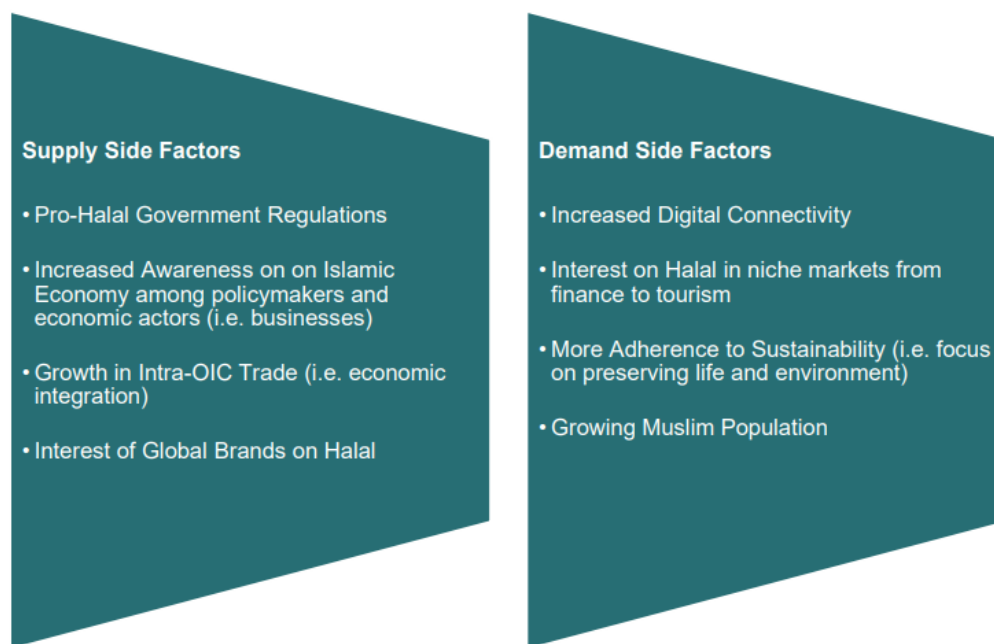
## I. Background

In basic terms, Halal refers to what is considered legal or lawful according to traditional Islamic Law. The term is commonly used to describe meals and drinks that comply with Islamic Dietary Laws (Department of Agriculture, n.d.). These laws are integral to the Islamic way of life. Alcohol, pork, carrion, carnivorous meat, and animals that perish from illness, injury, stunning, poisoning, or non-religious slaughter are categorized as forbidden or haram food substances under Halal.

Muslim-majority countries possess a more comprehensive understanding and have an established set of regulations about halal in the context of business, on a worldwide level. The Organisation of Islamic Cooperation (OIC), with 57 member countries, actively monitors the success of its many industries, particularly the halal business. The countries jointly represent the worldwide Muslim populace and strive to safeguard and advance their interests in the realms of economy, society, and politics. The organization participates in deliberations, formulates policy decisions, provides counsel on subjects on goal attainment, and tackles diverse concerns of the Member States and the Ummah. An illustration of such a policy is the distribution of information concerning the present condition of the global Halal industry.

Currently, Halal is a significant global industry that is utilized to promote a diverse array of products and services. The surge in growth, coupled with a rise in demand for Halal products, can be attributed to the expanding interest among Muslims in Halal products and services, as well as the heightened global awareness of concepts such as sustainability, ethical consumption, and green growth. These factors have greatly contributed to the thriving of the Halal industry in recent years, Figure 01.

**Figure 01.** Demand and Supply Side Growth Factors in the Halal Industry



Source: *Halal Industry in OIC Member Countries Report*

Under the OIC, it has released reports on the overall status of the Halal Sector of each member country. Recent reports divide the Halal Business Sector into four (4) sub-sector levels listed below and presented in Figure 02:

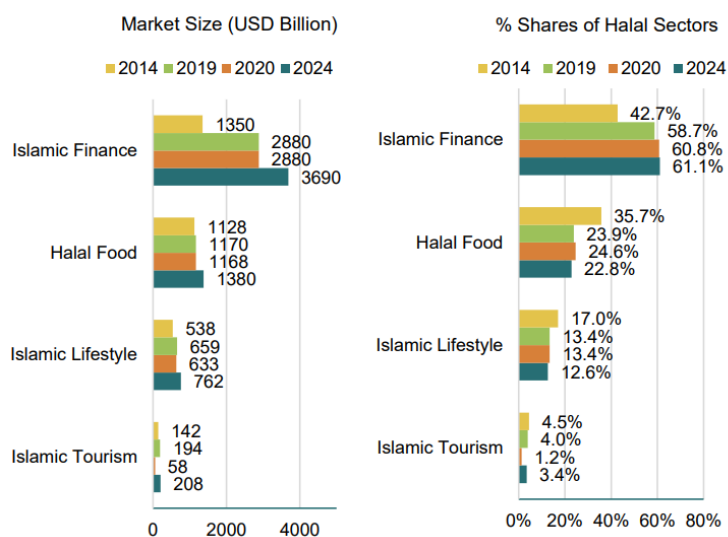
- a. Islamic Finance
- b. Halal Food
- c. Islamic Lifestyle
- d. Islamic Tourism

In 2021, the organization released a report on the Halal Business Sector's challenges and prospective opportunities, converging the data from all of its member states. One of its results was the comparison between the Global Market Shares against the Halal Sectors of the OIC Members. Islamic Finance has the most growth, from having a 42.7% share to having a 61.1% share. Halal food remains the second largest Halal sector in the OIC countries, with a USD 922.7 Billion share in 2020 (Organization of Islamic Cooperation, 2021). Various trends affect the Halal industry due to the after-effects of the COVID-19 Pandemic and

an increase in awareness among young people about health and wellness. These reasons can be seen in Figure 04. In 2021, the global Halal food and beverage market was valued at USD 774.93 billion and was expected to have a compound annual growth rate (CAGR) OF 3.6% from 2022 to 2030 (Food and Drinks Malaysia, 2023).

Overall, it was reported that the Halal industry is projected to grow and increase its market share, especially since Halal food items are becoming more popular amongst Muslim and non-Muslim consumers. They have evolved from an identification mark of religious observation to assurance of food safety, hygiene, and reliability. Besides this, several Islamic and non-Islamic countries are implementing stringent regulatory frameworks of globally accepted standards to attract novel entrants in the market (Food and Drinks Malaysia, 2023).

**Figure 02.** Percent Share of Halal Sectors of OIC Countries in the Global Market



Source: Halal Industry in OIC Member Countries Report

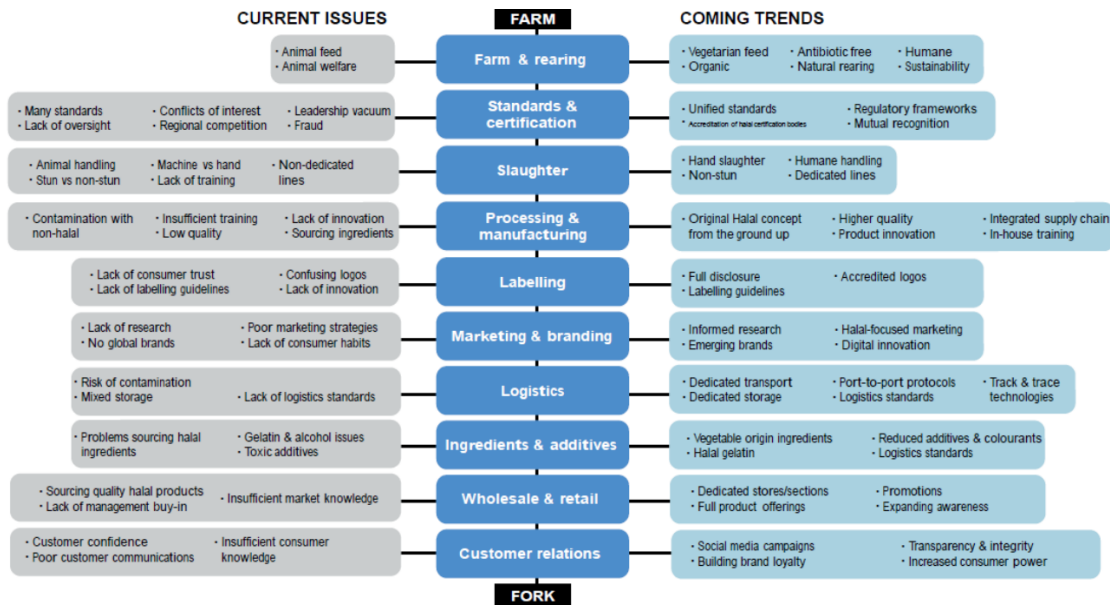
Noting that Halal Foods are one of the country's primary sectors being thrust as a leading economic contributor, focusing on halal foods and its value chain is important. Halal foods in general, have a sizable percentage of the Halal business industry that comes from Halal Certified food. This can be attributed to Halal primarily being the preparation of permissible foods in traditional Islamic

law. With this, there are strict guidelines that Halal food practitioners must follow so that the product being prepared is considered “Halal.”

Figure 03 shows the stages and processes of Halal food products, from sourcing to wholesale and customer relations. The graph also depicts the numerous challenges and tendencies encountered at each stage of the process. The majority of concerns in the Slaughtering Stage stem from proper slaughtering practices, such as stun vs. non-stun and machine vs. hand slaughtering. However, it should be noted that the trends favor hand slaughter and non-stun practice. Concerns about proper hygiene are a problem in the processing and manufacturing stages because they can lead to contamination.

It is also important to note that the Agency identified farm and rearing, standards and certification, slaughter, and processing and manufacturing as the focus of the consultation. This was presented to the various Halal industry players (both government and private) who attended the Halal Industry Consultation Stakeholders Forum last 31 July 2023.

**Figure 03.** Halal Food Farm-to-Fork Value Chain



Source: Halal Value Chain Bisnis Islam

The Department of Agriculture has also issued several Philippine National Standards (PNS) for halal practices, such as halal feeds, agriculture and fishery production, halal slaughtering, and others. This can be one of the many references on the program formulation that TESDA can use once the priority skills for development have been selected.

As more Filipinos become more conscientious of their food and beverage choices, Halal-certified items have emerged as a viable option. With the increasing number of Muslim and non-Muslim consumers in the worldwide market, rising demand for Halal-certified products, and the potential of the Halal business, many Small and Medium Enterprises (SMEs) are considering Halal certification. The DTI is attempting to persuade more of the projected 145 million Muslim visitors from the Middle East and ASEAN to visit the Philippines, as tourism is an important component of the Philippine economy.

## **II. Objectives**

The consultation intends to collect information on the current situation of the Halal Industry to determine the necessary training-related support and programs for the sector. Specifically, it intends to:

- Determine the challenges and opportunities;
- Present and validate the skills map;
- Discuss the relevance of the existing Training Regulations; and
- Determine the priority skill requirements for the sector.

## **III. Attendees**

The Planning Office invited the following organizations/agencies to the Industry Consultation:

- The Technical Education and Skills Development Authority (TESDA)
  - Planning Office (PO)
  - Qualifications and Standards Office (QSO)
- Department of Trade and Industry - Philippine Trade Training Center (DTI-PTTC)

- Department of Trade and Industry - Halal Taskforce
- Department of Science and Technology - Industrial Technology Development Institute (DOST-ITDI)
- Halal Development Institute of the Philippines, Inc. (HDIP)
- Islamic Da'wah Council of the Philippines, Inc.
- Embassy of Malaysia

#### **IV. The Highlights of the Results**

##### **4.1 Philippine Halal Industry Situationer**

In the Philippines, a predominantly Christian Country, there is a niche market for the Halal industry, specifically catering to the Islamic majority in the southern region. More recently, due to the newly formed Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), which is composed of a mostly Muslim population, there is now an "untapped market" for the Halal industry.

BARMM's location is close to Indonesia and Malaysia, both having a large Muslim-focused market and a well-developed Halal Industry supply that can have a positive influence in the region. The Philippine government, in turn, has pushed for more investments through its many agencies and laws. One example of this is the Philippine Economic Zone, which has aimed to develop a specialized economic zone in Mindanao that targets Halal food producers and investors and will boost the country's share of the global Halal industry, estimated to be worth US\$3 trillion. The country saw over US\$500 million of Halal food exports in 2018.

In 2016, the government signed Republic Act No. 10817, or the Halal Export Development and Promotion Act of 2016. The law was enacted to "promote growth and ensure the integrity and quality of Philippine Halal exports, exercise police power against trade malpractices, develop and promote Halal industries, and protect consumers and users from unscrupulous and unfair agricultural, manufacturing and trade practices" (Department of Agriculture, n.d.). The Act also establishes the Philippine Halal Export Development and Promotion Program



with a comprehensive set of objectives, targets, strategies, and activities for the growth of Halal industries, such as the following:

1. Development and application of Halal standards and practices
2. Organization and development of accredited certification bodies
3. Identification and expansion of markets
4. Forging international and bilateral agreements
5. Industry development and promotion
6. Consumer awareness and fair trade practices
7. Provision of common service facilities

The law also acted as a guide for businesses producing and marketing Halal items. Through the Act, the government has provided training modules to over 400 Micro, Small, and Medium Enterprises (MSMEs) and assisted in the development of more than ten Halal certifying bodies (Middle East Briefing, 2022). The Department of Trade and Industry also promotes more small and medium-sized firms to enter the worldwide Halal market.

Furthermore, Halal Certification is confirmation that the product or service has been subjected to Halal-approved standards. According to the Malaysia Halal Industry Certification System, there are several phases before a product or service is certified as Halal. Each stage and process corresponds to a certain job. An Administrative Officer, for example, handles the majority of application and document approval tasks. The majority of actions during the Inspection Phase are handled by a Technical Auditor and a Shariah Auditor. The Philippine Accreditation Bureau (DTI-PAB) of the Department of Trade and Industry (DTI) is the sole body in the Philippines that accredits Halal certifying authorities, inspection bodies, and testing and calibration laboratories.

#### **4.2 Challenges and Opportunities**

Based on the discussions made during the Industry consultation on Skills Requirements in the Halal Industry the following were the challenges and opportunities they currently face, as described by the expert. These were divided into several Aspects: Economic, Employment, Education, and Others.

Although there are challenges in different aspects listed here, TESDA can only address the challenges under its mandate, specifically, the development of halal-related programs. The other concerns can be addressed by the collaboration of different Halal Industry Stakeholders with the agency mandated under that specific concern.

**Table 1.** Summary of Challenges and Opportunities in Halal Industry

<b>Areas</b>	<b>Challenges</b>	<b>Opportunities</b>
<b>ECONOMIC</b>	<ul style="list-style-type: none"> <li>● Inflation</li> <li>● High cost of raw materials</li> <li>● High prices of commodities</li> <li>● Increasing prices of materials and ingredients used</li> <li>● Sudden price hikes</li> <li>● Weak policies on non-complying halal food processors</li> <li>● No awareness of the benefits of Halal Slaughtered and Certified meat and poultry products.</li> <li>● No available Muslim Halal Slaughtermen</li> <li>● No certified halal slaughter houses in the country</li> </ul>	<ul style="list-style-type: none"> <li>● Rapid growing industry</li> <li>● Market Expansion</li> <li>● New Market in Mindanao</li> <li>● E-commerce</li> <li>● Online Retail</li> <li>● Improved processing</li> <li>● Financial and investment opportunities</li> <li>● Farm to Manufacturing partnership</li> <li>● Increasing government support and potential for halal tourism</li> <li>● Growing demand for halal products and services</li> </ul>
<b>EMPLOYMENT</b>	<ul style="list-style-type: none"> <li>● Limited availability of skilled halal professionals and experts</li> <li>● Lack of facilities that will hire Halal Knowledgeable Workers</li> <li>● Insufficient trainings of workers</li> <li>● Inexperienced employees</li> <li>● No skills on the production process</li> </ul>	<ul style="list-style-type: none"> <li>● Opportunity in halal tourism and hospitality services</li> <li>● Technically Skilled Personnel needed in halal certified companies</li> <li>● Halal Production and Manufacturing Opportunity</li> <li>● Sales and Marketing Opportunity</li> <li>● Halal Research and</li> </ul>

Areas	Challenges	Opportunities
		Development Hiring <ul style="list-style-type: none"> <li>● More promotion opportunities</li> <li>● Work Opportunities in Mindanao</li> </ul>
<b>EDUCATION</b>	<ul style="list-style-type: none"> <li>● Lack of Education on Halal Regulation, Compliance and Policy</li> <li>● Lack of Proper knowledge in Halal Practice</li> <li>● Lack of Training Facilities for small halal businesses</li> <li>● Limited availability of specialized educational programs and courses on Halal</li> <li>● Low educational attainment</li> </ul>	<ul style="list-style-type: none"> <li>● Development of Halal training and research centers</li> <li>● Development of Halal institutions</li> <li>● Boost in Technical Courses on Halal</li> <li>● Cooperatives and Cooperative associations offer training programs</li> <li>● Government Grants and Support</li> <li>● Seminars on the halal assurance system</li> <li>● Create training program for employees</li> <li>● Opportunities for in-house training (GMP) Cert</li> </ul>
<b>Others</b>	<ul style="list-style-type: none"> <li>● Potential issues related to fraud and misinterpretation in halal industry</li> <li>● Competition in the market</li> <li>● Competitors who don't comply with standards</li> </ul>	<ul style="list-style-type: none"> <li>● Collaboration and standardization among halal certification bodies</li> <li>● Knowledge on the proper storing and handling of halal items/ products</li> </ul>

Based on the challenges provided above, TESDA can address challenges on the availability of Muslim Halal Slaughtermen, insufficient trainings of workers, Inexperienced employees, and absence of skills on the production process.

In addition, the representative from the Halal Development Institute of the Philippines highlighted another issue, which was that there were no domestic statistics on what the local halal players were exporting. Import and export halal product records are also part of an issue the industry faces. Additionally, religion is essential in developing Halal programs. The representatives explained that a person must be a practicing Muslim when dealing with any halal process.

### 4.3 Technical Skills Requirements

The list of requirements identified by the Halal Industry is presented in Table 2. These were identified from the initial consultation with the various Halal Industry players during the Halal Industry Stakeholders Forum.

**Table 2.** The List of the Requirements for the Halal Industry

<b>Value Chain (Halal Food)</b>	<b>Technical Requirements (Job/Skill/Qualification)</b>
<b>Farm and Rearing</b>	<ul style="list-style-type: none"> <li>● Halal Ruminant Farmer</li> <li>● Halal Poultry Farmer</li> <li>● Halal Feed Producer</li> <li>● Halal Agricultural Crop Farmer</li> <li>● Halal Animal Production</li> <li>● Halal Farm Worker/ Laborer</li> <li>● Animal Husbandry Practices and Cattle Farming</li> <li>● Halal Feeds Formulation</li> </ul>
<b>Certification</b>	<ul style="list-style-type: none"> <li>● Halal Quality Assurance/ Control Officer (Industry)</li> <li>● Halal Food Safety and Compliance Officer</li> <li>● Halal Quality Management Auditor</li> <li>● Halal Quality Assurance/ Control Specialist</li> <li>● Halal Technical and Shariah Auditor</li> <li>● Halal Inspector (Industry)</li> <li>● Halal Technical Compliance Officer</li> <li>● Halal Assurance Officer</li> <li>● Halal Assurance Management System</li> </ul>
<b>Slaughtering</b>	<ul style="list-style-type: none"> <li>● Halal Slaughterer</li> </ul>

Value Chain (Halal Food)	Technical Requirements (Job/Skill/Qualification)
	<ul style="list-style-type: none"> <li>● Halal Butcher</li> <li>● Halal Slaughterhouse/ Abattoir Worker</li> </ul>
<b>Processing</b>	<ul style="list-style-type: none"> <li>● Halal Food Safety and Hygiene</li> <li>● Halal Meat Processor (canned and deli products)</li> <li>● Halal Dairy Processors (butter, yogurt, cheese, and Ice cream)</li> <li>● Halal Product Handlers</li> <li>● Food technology and Processing</li> </ul>
<b>Other Skills</b>	<ul style="list-style-type: none"> <li>● Blockchain and Traceability</li> <li>● Artificial Intelligence and Machine Learning</li> <li>● Internet of Things (IoT) and Real-time Monitoring</li> <li>● Data Analytics</li> <li>● Data Science</li> <li>● Halal Orientation Strategy Programming</li> <li>● Halal Finance Practice</li> <li>● Basic on Halal and Principles</li> </ul>

These job/skills/priorities were considered in Question 2 of the industry consultation questionnaire, where the respondents were asked to review and identify each listed skill as needed by the industry.

#### 4.4 Identified Priority

The submitted responses were then processed to identify the industry's priorities. Table 3 shows the summary results of the survey.

**Table 3.** Summary of Identified Priorities by the Halal Industry

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
Certification	Halal Quality Assurance/ Control Officer (Industry)	83.33%	16.67%	50.00%	50.00%	0.00%	<ul style="list-style-type: none"> <li>no qualified applicants</li> <li>Deferent beliefs may interfere with Halal Certification</li> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need For Conduct Of Training</li> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>Need To Conduct Training And Certification</li> </ul>
Processing	Halal Food Safety and Hygiene	75.00%	25.00%	40.00%	40.00%	20.00%	<ul style="list-style-type: none"> <li>Low Pay</li> <li>Limited training</li> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Standarize Payment</li> <li>Need For Conduct Of Training</li> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> </ul>
Processing	Food technology and Processing	60.00%	40.00%	40.00%	60.00%	0.00%	<ul style="list-style-type: none"> <li>Low Pay</li> <li>no qualified applicant</li> <li>Limited training</li> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Standardized Payment</li> <li>Need For Conduct Of Training</li> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On Slaughtering Standard</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
								<ul style="list-style-type: none"> <li>With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>Need To Conduct Training And Certification</li> </ul>
Other Skills	Basic on Halal and Principles	87.50%	12.50%	75.00%	25.00%	0.00%	<ul style="list-style-type: none"> <li>No proper knowledge</li> <li>seek higher pay</li> <li>Slow internet &amp; local data input about Halal</li> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need To Conduct Training And Certification</li> </ul>
Certification	Halal Quality Management Auditor	80.00%	20.00%	33.33%	66.67%	0.00%	<ul style="list-style-type: none"> <li>no qualified applicants</li> <li>Deferent beliefs may interfere with Halal Certification</li> </ul>	<ul style="list-style-type: none"> <li>Need For Conduct Of Training</li> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>Need To Conduct Training And Certification</li> </ul>
Certification	Halal Assurance Officer	80.00%	20.00%	33.33%	66.67%	0.00%	<ul style="list-style-type: none"> <li>no qualified applicants</li> <li>Deferent beliefs may interfere with Halal Certification</li> <li>Economic growth</li> </ul>	<ul style="list-style-type: none"> <li>Need For Conduct Of Training</li> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
							and job creation	Slaughtering Standard With Triple A Grade. <ul style="list-style-type: none"> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>Need To Conduct Training And Certification</li> </ul>
Processing	Halal Product Handlers	33.33%	66.67%	20.00%	80.00%	0.00%	<ul style="list-style-type: none"> <li>Low Pay</li> <li>no qualified applicant</li> <li>Limited training</li> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Standardized Payment</li> <li>Need For Conduct Of Training</li> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>Need To Conduct Training And Certification</li> </ul>
Other Skills	Halal Orientation Strategy Programming	100.00 %	0.00%	50.00%	50.00%	0.00%	<ul style="list-style-type: none"> <li>No proper knowledge</li> <li>no qualified applicant</li> <li>Slow internet &amp; local data input about Halal</li> </ul>	<ul style="list-style-type: none"> <li>Need To Conduct Training</li> </ul>
Certification	Halal Food Safety and Compliance Officer	75.00%	25.00%	33.33%	66.67%	0.00%	<ul style="list-style-type: none"> <li>no qualified applicants</li> <li>Different beliefs may interfere with Halal Certification</li> </ul>	<ul style="list-style-type: none"> <li>Need For Conduct Of Training</li> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> </ul>



VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
							<ul style="list-style-type: none"> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>Need To Conduct Training And Certification</li> </ul>
Certification	Halal Technical and Shariah Auditor	66.67%	33.33%	50.00%	50.00%	0.00%	<ul style="list-style-type: none"> <li>no qualified applicants</li> <li>Different beliefs may interfere with Halal Certification</li> </ul>	<ul style="list-style-type: none"> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>Need To Conduct Training And Certification</li> </ul>
Certification	Halal Inspector (Industry)	75.00%	25.00%	33.33%	66.67%	0.00%	<ul style="list-style-type: none"> <li>seek higher pay</li> <li>Different beliefs may interfere with Halal Certification</li> </ul>	<ul style="list-style-type: none"> <li>Need For Conduct Of Training</li> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
								Science <ul style="list-style-type: none"> <li>• Need To Conduct Training And Certification</li> </ul>
<b>Certification</b>	Halal Assurance Management System	75.00%	25.00%	33.33%	66.67%	0.00%	<ul style="list-style-type: none"> <li>• no qualified applicants</li> <li>• Different beliefs may interfere with Halal Certification</li> <li>• Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>• Need For Conduct Of Training</li> <li>• Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>• Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>• Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>• Need To Conduct Training And Certification</li> </ul>
<b>Other Skills</b>	Internet of Things (IoT) and Real-time Monitoring	100.00 %	0.00%	50.00%	50.00%	0.00%	<ul style="list-style-type: none"> <li>• No proper knowledge</li> <li>• no qualified applicant</li> </ul>	<ul style="list-style-type: none"> <li>• Need To Conduct Training</li> </ul>
<b>Certification</b>	Halal Quality Assurance/ Control Specialist	66.67%	33.33%	66.67%	33.33%	0.00%	<ul style="list-style-type: none"> <li>• no qualified applicants</li> <li>• Different beliefs may interfere with Halal Certification</li> </ul>	<ul style="list-style-type: none"> <li>• need for conduct of training</li> <li>• Promote non-profit NGO to provide Halal Certification.</li> <li>• Proper education on slaughtering standard with triple A grade.</li> <li>• Promotion of Halal by integration of Halal subject in the academe of Food Technology &amp; Food Science</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS  (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
Certification	Halal Technical Compliance Officer	75.00%	25.00%	50.00%	50.00%	0.00%	<ul style="list-style-type: none"> <li>seek higher pay</li> <li>Different beliefs may interfere with Halal Certification</li> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>need for conduct of training</li> <li>Promote non-profit NGO to provide Halal Certification.</li> <li>Proper education on slaughtering standard with triple A grade.</li> <li>Promotion of Halal by integration of Halal subject in the academe of Food Technology &amp; Food Science</li> </ul>
Farm and Rearing	Halal Agricultural Crop Farmer	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>No proper knowledge</li> <li>Inaccessible data based from registered farmers.</li> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need to establish groups, companies that engage into Animal Farming</li> <li>Need to conduct Training and Certification</li> </ul>
Farm and Rearing	Halal Farm Worker/ Laborer	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>No proper knowledge</li> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need to conduct Training and Certification</li> </ul>
Farm and Rearing	Animal Husbandry Practices and Cattle Farming	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need to conduct Training and Certification</li> </ul>
Farm and Rearing	Halal Feeds Formulation	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need to conduct Training and Certification</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS  (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
<b>Slaughtering</b>	Halal Slaughterer	100.00 %	0.00%	0.00%	50.00%	50.00%	<ul style="list-style-type: none"> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need to conduct Training and Certification</li> </ul>
<b>Slaughtering</b>	Halal Butcher	100.00 %	0.00%	0.00%	50.00%	50.00%	<ul style="list-style-type: none"> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need to conduct Training and Certification</li> </ul>
<b>Slaughtering</b>	Halal Slaughterhouse/ Abattoir Worker	100.00 %	0.00%	0.00%	50.00%	50.00%	<ul style="list-style-type: none"> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need to conduct Training and Certification</li> </ul>
<b>Processing</b>	Halal Meat Processor (canned and deli products)	100.00 %	0.00%	0.00%	50.00%	50.00%	<ul style="list-style-type: none"> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Promote non-profit NGO to provide Halal Certification.</li> <li>Proper education on slaughtering standard with triple A grade.</li> <li>Promotion of Halal by integration of Halal subject in the academe of Food Technology &amp; Food Science</li> <li>Need to conduct Training and Certification</li> </ul>
<b>Farm and Rearing</b>	Halal Feed Producer	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>Inaccessible data based from registered farmers</li> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need to establish groups, companies that engage into Animal Farming</li> <li>Need to conduct Training and Certification</li> </ul>
<b>Farm and Rearing</b>	Halal Animal Production	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need to conduct Training and Certification</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
Processing	Halal Dairy Processors (butter, yogurt, cheese, and Ice cream)	100.00 %	0.00%	0.00%	0.00%	100.00%	<ul style="list-style-type: none"> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Promote non-profit NGO to provide Halal Certification.</li> <li>Proper education on slaughtering standard with triple A grade.</li> <li>Promotion of Halal by integration of Halal subject in the academe of Food Technology &amp; Food Science</li> </ul>
Farm and Rearing	Halal Ruminant Farmer	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need to conduct Training and Certification</li> </ul>
Farm and Rearing	Halal Poultry Farmer	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>Economic growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Need to conduct Training and Certification</li> </ul>

The representatives agreed on the development of a halal slaughtering and butcher program. In particular, DOST stated that if the said qualifications were to be developed, a clear and streamlined process should be adopted, which was agreed upon by the representatives from the Malaysian Embassy. TESDA noted the religious issue and suggested that the religious aspect of the program should not be separated. One way that this can be done is by making it a requirement in any halal program being developed.

Furthermore, the representatives from the Halal Certification Bodies noted that the Philippines follows the ASEAN halal standard for slaughtering, which can be used as a reference in the program's development process. Other references may include the PNS on Halal Slaughtering, the Malaysian Standard, and other Muslim country slaughtering standards. DOST members suggested that TESDA

specify the species of animals that the halal slaughtering program covers. Halal feed formulation and halal-related husbandry practices are vital skills, as most halal businesses have guidelines on these aspects. Halal Dairy Processor should also be double-checked or verified, as Halal Meat Processors would have better skills to develop as most halal products used in food processing are readily available in the market. This is compatible with Food Processing NC II, an existing training regulation that has halal-related competencies.

The representatives also stated that, due to religious concerns, any halal-related program that is established should be distinct and not integrated into any existing programs. TESDA recognized this as well and proposed that any halal programs based on the value chain be developed as a distinct program.

The Islamic Da'wah Council of the Philippines representative stated that there is a certain career path for halal slaughterers. These workers will start as halal checkers, then become halal slaughterers, and later on halal supervisors. This was noted by TESDA and suggested that although the qualifications satisfy the four (4) criteria for prioritization, there are still gaps in the halal infrastructure. Thus, training programs for halal checkers, halal slaughterers, halal butchers, and halal supervisors should be developed in parallel with each other as Competency Standards first. The monitoring of the developed programs should be done by TESDA to ensure their effectiveness and determine whether they should be upgraded to Training Regulations. There are also stand-alone programs from Halal Certifying Bodies that can be registered in the TESDA district offices as No Training Regulations (NTR).

#### **4.5 Soft Skills and Skills Related to the 4IR**

In addition to the technical skills, the industry also identified soft skills needed by workers in performing jobs. The soft skills relevant to the halal industry are communication skills, critical thinking, customer service, effective decision-making skills, flexibility, interpersonal skills, leadership, negotiation skills, problem-solving skills, teamwork, technical learning agility, and time management.

The respondents from the halal-certified companies were also asked about skills in the industry that specifically emerged from the new technology of the 4th Industrial Revolution. The Halal Industry anticipated the following emerging skills:

- Digital literacy
- Sustainability and Ethical Standards
- Data Analysis
- Innovation and Product Development
- Automation Knowledge
- Digital Marketing
- Virtual reality
- Internet Marketing
- Internet of Things (IoT) and Real-time Monitoring
- Blockchain and Traceability

Blockchain and Traceability was specifically identified as an important emerging skill needed in the halal industry. This can be further explored in the following process and how it will be incorporated into the proposed program to be developed.

#### **4.6 Possible Training Provider**

The results also yielded the list of possible training providers identified by the respondents. It should be noted that most of the training providers identified were government agencies, such as the following:

- Department of Agriculture (DA)
- Department Of Information And Communications Technology (DICT)
- Department of Science and Technology (DOST)
- Department of Trade and Industry (DTI)
- Philippine Coconut Authority (PCA)
- Technical Education and Skills Development Authority (TESDA)
- Department of Islamic Development Malaysia ( JAKIM )

It should be noted that the Department of Islamic Development (JAKIM) is a Malaysian government agency. In regards to the identification as a possible training provider, the representatives from the Malaysian Embassy stated that their government is very much interested in assisting TESDA with their halal-related initiatives as long as a general "streamlined" halal guidelines are in place.

#### 4.7 Other Sectors/Sub-Industries that Will be Affected

The respondents also identified possible sectors/industries that can also possibly encompass the developed skills. These sectors/industries include the following:

- Agriculture, Forestry, and Fishery
- Logistics and Warehousing
- Manufacturing
- Processed Food and Beverages
- Wholesale and Retail Trading

#### V. Mapping of Skills Requirements vis-à-vis Existing TR

Table 5 shows the available Training Regulations for each of the identified priority requirements in the Halal Industry.

**Table 5.** Equivalent Qualifications (WTR) for Identified Priority Requirements in the Halal Industry

Skills/ Job	Qualification (WTR)
Halal Slaughterer	No Equivalent Qualification
Halal Butcher	No Equivalent Qualification
Halal Slaughterhouse/ Abattoir Worker	No Equivalent Qualification
Halal Dairy Processors (butter, yogurt, cheese, and ice cream)	No Equivalent Qualification
Halal Quality Assurance/ Control Officer	No Equivalent Qualification



Skills/ Job	Qualification (WTR)
(Industry)	
Halal Quality Management Auditor	No Equivalent Qualification
Halal Food Safety and Compliance Officer	No Equivalent Qualification
Halal Technical and Shariah Auditor	No Equivalent Qualification
Halal Inspector (Industry)	No Equivalent Qualification
Halal Assurance Management System	No Equivalent Qualification
Halal Technical Compliance Officer	No Equivalent Qualification
Halal Agricultural Crop Farmer	No Equivalent Qualification
Halal Farm Worker/ Laborer	No Equivalent Qualification
Animal Husbandry Practices and Cattle Farming	No Equivalent Qualification
Halal Feeds Formulation/ Producer	No Equivalent Qualification
Halal Animal Production	No Equivalent Qualification
Halal Ruminant Farmer	No Equivalent Qualification
Halal Poultry Farmer	No Equivalent Qualification
Halal Food Safety and Hygiene	No Equivalent Qualification
Food technology and Processing	No Equivalent Qualification
Halal Orientation Strategy Programming	No Equivalent Qualification
Internet of Things (IoT) and Real-time Monitoring	No Equivalent Qualification
Blockchain and Traceability	No Equivalent Qualification
Halal Product Handlers	No Equivalent Qualification

Skills/ Job	Qualification (WTR)
Halal Control Specialist	No Equivalent Qualification
Basic on Halal and Principles	No Equivalent Qualification
Data Analytics	No Equivalent Qualification
Data Science	No Equivalent Qualification
Halal Finance Practice	No Equivalent Qualification

In addition to the priority skills identified, the DOST representatives also noted that Halal Meat processing, such as halal sausages and other processed halal meat products, are needed by the community and the halal ingredients needed are available in the market.

## VI. TVET Capacity

**Table 6.** Total Number of Enrolled, Graduated, Assessed, and Certified (WTR), 2020-2022

TR	Enrolled			Graduated			Assessed			Certified		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Food Processing NC II	1,416	1,619	1,579	1,195	1,788	1,801	5,843	6,083	5,675	5,663	5,913	5,554

Source: TESDA ICTO (Enrolled, Graduates) and Certification Office (Assessed, Certified)  
Processed by: TESDA Planning Office

**Table 7.** Number of Assessment Centers, Competency Assessors, Registered Programs, and National TVET Trainers Certification Holder as of September 2023

TR	No. of Assessment Centers	No. of Competency Assessors	Registered Programs	Trainers
Food Processing NC II	62	138	98	440

Source: TESDA ICTO (Enrolled, Graduates) and Certification Office (Assessed, Certified)  
Processed by: TESDA Planning Office

Based on the current programs being offered, Food Processing NC II is the only Training regulation with halal competencies. Between 2020 and 2022, there were a high number of enrollees, graduates, assessed, and certified trainees in the Food Processing NC II. According to TESDA data, the program had the most number of enrollees (1,619) in 2021, the highest number of graduates (1,801) in 2022, and the highest number of assessed and certified trainees (6,083 and 5,913, respectively) in 2021.

In addition, there has been a high number of programs registered (98) under the said Training Regulation as well as a high number of competency assessors (138), assessment centers (62), and trainers (440).

## VII. Way Forward

The representatives from the various Government Agencies, Private companies, and TESDA agreed on providing the proper training and certification for halal-related workers. The following are the recommended action items:

- **Prioritization of Halal-Related Skills**

As seen in the results of the industry survey and validation meetings, there is a need to formulate full-blown Training Regulations for halal-related jobs, but based on the current halal industry infrastructure, the identified priority skills should be first developed as Competency Standards. Then, as the halal industry infrastructure is strengthened, TESDA can then move with upgrading these said programs to Training Regulations.

Below are the priority skills recommended for the development of Competency Standards prior to the development of a full-blown Training Regulation once the infrastructure is ready.

<b>Value Chain Segment</b>	<b>Skills/ Jobs/ Qualification</b>	<b>Requirement</b>
Slaughtering	Halal Slaughterer	Practicing Muslim
	Halal Butcher	
Standards and Certification	Halal Checker	
	Halal Supervisor	

Processing	Halal Meat Processor	
------------	----------------------	--

Relative to this and as part of the prioritization process, once the programs are ready to be upgraded to Training Regulations, the Planning Office shall then assist the determined industry champion in preparing for the presentation to the TESDA Board - Direction Setting Committee (TB-DSC).

It is important to note that the development of these programs into Competency Standards (CS) should be in parallel with each other. A Halal industry stakeholder mentioned in the validation meeting that Halal Checker is the “entry-level” position, with Halal Slaughterer as the next career pathway, and then become the Halal Supervisor. The proper identification of the type of animals covered by the Halal Slaughterer and the Halal Butcher should be done in the Functional Analysis Phase. Halal Meat Processors were also identified as priority as most of the halal ingredients needed are available in the market and needed by the community.

Furthermore, as mentioned above, because of the religious aspects needed in the halal-related qualification, one of the requirements in the proposed programs is that the trainers and assessors should be practicing Muslims. Similarly, the trainees themselves must be practicing Muslims as well. The implication of this requirement to the infrastructure of trainers is one of the reasons why the programs for the above-mentioned skills will be first developed as Competency Standards, instead of Training Regulations automatically. This provides ample time for the implementers to build first their trainer, assessment center, and competency assessor infrastructure.

In addition to this, the validation meeting also identified the following skills/jobs/qualifications for Competency Standards (CS) development:

<b>Value Chain Segment</b>	<b>Skills/ Jobs/ Qualification</b>
Farm and Rearing	Halal Feeds Formulation/ Producer
	Halal-related Animal Husbandry Practices and Cattle Farming

It can be noted that these prioritized skills for CS/TR development can address

the challenges identified by the industry stakeholders, particularly on the availability of Muslim Halal Slaughtermen, insufficient training of workers, inexperienced employees, and absence of skills on the production process.

- **Inclusion of the Emerging in the Program**

As indicated in the validation meeting, emerging skills, specifically Blockchain and Traceability, are crucial for workers in the halal industry. Thus, it is recommended that they be integrated into the TESDA program that will be developed.

## VIII. Annexes

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
<b>Certification</b>	Halal Quality Assurance/ Control Officer (Industry)	83.33%	16.67%	50.00%	50.00%	0.00%	<ul style="list-style-type: none"> <li>No Qualified Applicants</li> <li>Deferent Beliefs May Interfere With Halal Certification</li> <li>Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>Need For Conduct Of Training</li> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>Need To Conduct Training And Certification</li> </ul>
<b>Processing</b>	Halal Food Safety and Hygiene	75.00%	25.00%	40.00%	40.00%	20.00%	<ul style="list-style-type: none"> <li>Low Pay</li> <li>Seek Higher Pay</li> </ul>	<ul style="list-style-type: none"> <li>Standarize Payment</li> <li>Need For Conduct Of</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
							<ul style="list-style-type: none"> <li>• Limited Training</li> <li>• Economic Growth And Job Creation</li> </ul>	Training <ul style="list-style-type: none"> <li>• Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>• Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>• Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> </ul>
<b>Processing</b>	Food technology and Processing	60.00%	40.00%	40.00%	60.00%	0.00%	<ul style="list-style-type: none"> <li>• Low Pay</li> <li>• No Qualified Applicant</li> <li>• Limited Training</li> <li>• Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>• Standarize Payment</li> <li>• Need For Conduct Of Training</li> <li>• Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>• Proper Education On Slaughtering Standard With</li> </ul>



VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
								Triple A Grade. <ul style="list-style-type: none"> <li>• Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>• Need To Conduct Training And Certification</li> </ul>
<b>Other Skills</b>	Artificial Intelligence and Machine Learning	100.00 %	0.00%	40.00%	60.00%	0.00%	<ul style="list-style-type: none"> <li>• No Proper Knowledge</li> <li>• No Qualified Applicant</li> <li>• Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>• Need To Conduct Training And Certification</li> </ul>
<b>Other Skills</b>	Basic on Halal and Principles	87.50%	12.50%	75.00%	25.00%	0.00%	<ul style="list-style-type: none"> <li>• No Proper Knowledge</li> <li>• Seek Higher Pay</li> <li>• Slow Internet &amp; Local</li> </ul>	<ul style="list-style-type: none"> <li>• Need To Conduct Training And Certification</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
							Data Input About Halal ● Economic Growth And Job Creation	
<b>Certification</b>	Halal Quality Management Auditor	80.00%	20.00%	33.33%	66.67%	0.00%	<ul style="list-style-type: none"> <li>● No Qualified Applicants</li> <li>● Deferent Beliefs May Interfere With Halal Certification</li> </ul>	<ul style="list-style-type: none"> <li>● Need For Conduct Of Training</li> <li>● Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>● Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>● Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>● Need To Conduct Training And Certification</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
<b>Certification</b>	Halal Assurance Officer	80.00%	20.00%	33.33%	66.67%	0.00%	<ul style="list-style-type: none"> <li>No Qualified Applicants</li> <li>Deferent Beliefs May Interfere With Halal Certification</li> <li>Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>Need For Conduct Of Training</li> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>Need To Conduct Training And Certification</li> </ul>
<b>Processing</b>	Halal Product Handlers	33.33%	66.67%	20.00%	80.00%	0.00%	<ul style="list-style-type: none"> <li>Low Pay</li> <li>No Qualified Applicant</li> <li>Limited Training</li> </ul>	<ul style="list-style-type: none"> <li>Standarize Payment</li> <li>Need For Conduct Of Training</li> <li>Promote Non-Profit Ngo To</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
							<ul style="list-style-type: none"> <li>Economic Growth And Job Creation</li> </ul>	Provide Halal Certification. <ul style="list-style-type: none"> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>Need To Conduct Training And Certification</li> </ul>
<b>Other Skills</b>	Blockchain and Traceability	80.00%	20.00%	33.33%	66.67%	0.00%	<ul style="list-style-type: none"> <li>No Proper Knowledge</li> <li>Slow Internet &amp; Local Data Input About Halal</li> <li>Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>Need To Conduct Training</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
<b>Other Skills</b>	Halal Orientation Strategy Programming	100.00 %	0.00%	50.00%	50.00%	0.00%	<ul style="list-style-type: none"> <li>• No Proper Knowledge</li> <li>• No Qualified Applicant</li> <li>• Slow Internet &amp; Local Data Input About Halal</li> </ul>	<ul style="list-style-type: none"> <li>• Need To Conduct Training</li> </ul>
<b>Certification</b>	Halal Food Safety and Compliance Officer	75.00%	25.00%	33.33%	66.67%	0.00%	<ul style="list-style-type: none"> <li>• No Qualified Applicants</li> <li>• Deferent Beliefs May Interfere With Halal Certification</li> <li>• Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>• Need For Conduct Of Training</li> <li>• Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>• Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>• Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS  (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
								Technology & Food Science ● Need To Conduct Training And Certification
<b>Certification</b>	Halal Technical and Shariah Auditor	66.67%	33.33%	50.00%	50.00%	0.00%	<ul style="list-style-type: none"> <li>● No Qualified Applicants</li> <li>● Deferent Beliefs May Interfere With Halal Certification</li> </ul>	<ul style="list-style-type: none"> <li>● Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>● Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>● Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>● Need To Conduct Training And Certification</li> </ul>
<b>Certification</b>	Halal Inspector (Industry)	75.00%	25.00%	33.33%	66.67%	0.00%	<ul style="list-style-type: none"> <li>● Seek Higher Pay</li> <li>● Deferent Beliefs May Interfere With Halal</li> </ul>	<ul style="list-style-type: none"> <li>● Need For Conduct Of Training</li> <li>● Promote Non-Profit Ngo To</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
							Certification	Provide Halal Certification. <ul style="list-style-type: none"> <li>• Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>• Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>• Need To Conduct Training And Certification</li> </ul>
<b>Certification</b>	Halal Assurance Management System	75.00%	25.00%	33.33%	66.67%	0.00%	<ul style="list-style-type: none"> <li>• No Qualified Applicants</li> <li>• Deferent Beliefs May Interfere With Halal Certification</li> <li>• Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>• Need For Conduct Of Training</li> <li>• Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>• Proper Education On Slaughtering Standard With Triple A Grade.</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
								<ul style="list-style-type: none"> <li>● Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>● Need To Conduct Training And Certification</li> </ul>
<b>Other Skills</b>	Internet of Things (IoT) and Real-time Monitoring	100.00 %	0.00%	50.00%	50.00%	0.00%	<ul style="list-style-type: none"> <li>● No Proper Knowledge</li> <li>● No Qualified Applicant</li> </ul>	<ul style="list-style-type: none"> <li>● Need To Conduct Training</li> </ul>
<b>Certification</b>	Halal Quality Assurance/ Control Specialist	66.67%	33.33%	66.67%	33.33%	0.00%	<ul style="list-style-type: none"> <li>● No Qualified Applicants</li> <li>● Deferent Beliefs May Interfere With Halal Certification</li> </ul>	<ul style="list-style-type: none"> <li>● Need For Conduct Of Training</li> <li>● Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>● Proper Education On Slaughtering Standard With Triple A Grade.</li> </ul>



VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
								<ul style="list-style-type: none"> <li>• Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> </ul>
<b>Certification</b>	Halal Technical Compliance Officer	75.00%	25.00%	50.00%	50.00%	0.00%	<ul style="list-style-type: none"> <li>• Seek Higher Pay</li> <li>• Deferent Beliefs May Interfere With Halal Certification</li> <li>• Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>• Need For Conduct Of Training</li> <li>• Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>• Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>• Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> </ul>
<b>Other Skills</b>	Data Analytics	100.00 %	0.00%	66.67%	33.33%	0.00%	<ul style="list-style-type: none"> <li>• No Qualified Applicant</li> </ul>	<ul style="list-style-type: none"> <li>• Need To Conduct Training And Certification</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
							<ul style="list-style-type: none"> <li>Economic Growth And Job Creation</li> </ul>	
<b>Farm and Rearing</b>	Halal Agricultural Crop Farmer	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>No Proper Knowledge</li> <li>Inaccessible Data Based From Registered Farmers.Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>Need To Establish Groups, Companies That Engage Into Animal Farming</li> <li>Need To Conduct Training And Certification</li> </ul>
<b>Farm and Rearing</b>	Halal Farm Worker/ Laborer	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>No Proper Knowledge</li> <li>Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>Need To Conduct Training And Certification</li> </ul>
<b>Other Skills</b>	Data Science	100.00 %	0.00%	66.67%	33.33%	0.00%	<ul style="list-style-type: none"> <li>No Qualified Applicant</li> </ul>	<ul style="list-style-type: none"> <li>Need To Conduct Training And Certification</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
Other Skills	Halal Finance Practice	100.00 %	0.00%	100.00%	0.00%	0.00%	<ul style="list-style-type: none"> <li>• Seek Higher Pay</li> <li>• Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>• Need To Conduct Training And Certification</li> </ul>
Farm and Rearing	Animal Husbandry Practices and Cattle Farming	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>• Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>• Need To Conduct Training And Certification</li> </ul>
Farm and Rearing	Halal Feeds Formulation	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>• Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>• Need To Conduct Training And Certification</li> </ul>
Slaughtering	Halal Slaughterer	100.00 %	0.00%	0.00%	50.00%	50.00%	<ul style="list-style-type: none"> <li>• Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>• Need To Conduct Training And Certification</li> </ul>
Slaughtering	Halal Butcher	100.00 %	0.00%	0.00%	50.00%	50.00%	<ul style="list-style-type: none"> <li>• Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>• Need To Conduct Training And Certification</li> </ul>
Slaughtering	Halal Slaughterhouse/ Abattoir Worker	100.00 %	0.00%	0.00%	50.00%	50.00%	<ul style="list-style-type: none"> <li>• Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>• Need To Conduct Training And Certification</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS  (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
<b>Processing</b>	Halal Meat Processor (canned and deli products)	100.00 %	0.00%	0.00%	50.00%	50.00%	<ul style="list-style-type: none"> <li>Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> <li>Need To Conduct Training And Certification</li> </ul>
<b>Farm and Rearing</b>	Halal Feed Producer	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>Inaccessible Data Based From Registered Farmers</li> <li>Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>Need To Establish Groups, Companies That Engage Into Animal Farming</li> <li>Need To Conduct Training And Certification</li> </ul>

VALUE CHAIN SEGMENT	JOBS/SKILLS/ QUALIFICATIONS  (TECHNICAL SKILLS)	JOBS/SKILLS IMMEDIATELY NEEDED (% Share)		ASSESS THE SHORTAGE OF WORKERS IN FILLING-UP THE SKILLS REQUIREMENTS (% Share)			REASONS/CONSTRAINTS IN FILLING-UP THE SKILLS REQUIREMENTS  (e.g. no qualified applicants, prefer to work abroad, seek higher pay, work schedule)	RECOMMENDED ACTION  (e.g. need for the conduct of training, standardization, certification)
		In the next 1-3 years	In the next 3-5 years	Low (below 100)	Medium (100-500)	High (above 500)		
<b>Farm and Rearing</b>	Halal Animal Production	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>Need To Conduct Training And Certification</li> </ul>
<b>Processing</b>	Halal Dairy Processors (butter,yogurt, cheese, and Ice cream)	100.00 %	0.00%	0.00%	0.00%	100.00%	<ul style="list-style-type: none"> <li>Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>Promote Non-Profit Ngo To Provide Halal Certification.</li> <li>Proper Education On Slaughtering Standard With Triple A Grade.</li> <li>Promotion Of Halal By Integration Of Halal Subject In The Academe Of Food Technology &amp; Food Science</li> </ul>
<b>Farm and Rearing</b>	Halal Ruminant Farmer	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>Need To Conduct Training And Certification</li> </ul>
<b>Farm and Rearing</b>	Halal Poultry Farmer	100.00 %	0.00%	0.00%	100.00%	0.00%	<ul style="list-style-type: none"> <li>Economic Growth And Job Creation</li> </ul>	<ul style="list-style-type: none"> <li>Need To Conduct Training And Certification</li> </ul>

## IX. References

- Department of Agriculture. (n.d.). "What is Halal?".  
<https://www.google.com/url?q=http://Halal.da.gov.ph/what-is-Halal/&sa=D&source=docs&ust=1681654141168279&usg=AOvVaw1zyzYas128e8-1CRix9Vn5>
- Department of Agriculture. (n.d.). "Halal Food Industry Development Program."  
<http://Halal.da.gov.ph/Halal-food-industry-development-program/>
- Dr. Wahab AmalMerge Sdn. Bhd. (2004). "Guidelines for the Preparation of Halal Food and Goods For Muslim Consumers."  
<https://www.Halalrc.org/images/Research%20Material/Literature/Halal%20Guidelines.pdf>
- Food Drinks & Malaysia. (n.d.). "Halal – Growing Market, Both in Malaysia & Around the World." <https://www.fooddrinksmalaysia.com/Halal>
- Middle East Briefing. (2022). "Islamic and Halal Export Opportunities to the Philippines." <https://www.middleeastbriefing.com/news/islamic-and-Halal-export-opportunities-to-the-Philippines/>
- National Nutrition Council. (2021). "Understanding the Significance of HALAL Foods to Muslims."  
<https://nnc.gov.ph/regional-offices/mindanao/region-ix-zamboanga-peninsula/6305-understanding-the-significance-of-halal-foods-to-muslims>
- Open Course Ware. (n.d.). "Halal Value Chain Bisnis Islam."  
[https://ocw.ui.ac.id/pluginfile.php/995/mod\\_resource/content/1/week12%20Halal%20Value%20Chain%202.0.pdf](https://ocw.ui.ac.id/pluginfile.php/995/mod_resource/content/1/week12%20Halal%20Value%20Chain%202.0.pdf)
- Organization of Islamic Cooperation. (n.d.). "A Brief on the Organisation of Islamic Cooperation (OIC) and its Institutions."  
[https://www.sesric.org/about-oic.php#:~:text=The%20Organisation%20of%20Islamic%20Cooperation%20\(OIC\)%20is%20the%20second%20largest.economic%20socio%20and%20political%20areas.](https://www.sesric.org/about-oic.php#:~:text=The%20Organisation%20of%20Islamic%20Cooperation%20(OIC)%20is%20the%20second%20largest.economic%20socio%20and%20political%20areas.)

Organization of Islamic Cooperation. (2021). "Halal Industry in the OIC Member Countries: Challenges and Prospects."  
<https://sesricdiag.blob.core.windows.net/sesric-site-blob/files/article/794.pdf>



## **TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY**

**Office of the Deputy Director-General for Policies and Planning**

Planning Office - Labor Market Information Division

Planning Office - Policy Research and Evaluation Division

TESDA Complex, East Service Road, South Superhighway,  
Fort Bonifacio, Taguig City, 1630

[www.tesda.gov.ph](http://www.tesda.gov.ph) | (02) 8817-2675