ASPECTS TO BE KNOWN BY MARINE CARRIERS INVOLVED IN HALAL FOOD CHAIN

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Abstract

Halal food (permissible nourishment) is the dietary requirement for the Muslims, defined and mentioned clearly in the Holy book of these believers, the Quran. Since the Muslim population is in growth, the halal food market is seen to be profitable not only for Muslim companies, but also for non-Muslim businesses worldwide. The trueness of halal food might be affected during transport services, being requested the segregation of workers and facilities. Muslim consumers are interested in knowing if these aspects are accomplished. The integrity of halal food is ensured by halal food chain – discussed in the paper. This study deals with aspects to be known by marine carriers from non-Muslim countries, interested in the profit resulted from this sector and involved in the halal food chain. Are described the specific features of halal food dedicated transport and principles to be adopted by marine carriers, when their business deals with halal food.

Keywords: halal, food, chain, transport, carrier

1. Introduction

Worldwide population is projected to grow in the following decades, but when speaking about Muslim population, this is expected to grow to approximately 2.2 billion in 2030, being predicted, consequently, an increased demand for the specific food market (halal food) [1].

Eating halal is an order of Allah for Muslim population and represents a vital part of the religion of these believers. Halal food consumption is a dietary standard for Muslim believers and the accomplishment of this requirement is compulsory, since this is stated in the holy Qur'an. Halal food is an important aspect of the daily life not only for Muslims. Having in view that this concept is defined by hygiene, cleanliness and quality of food, other believers might be interested also in it. Thus, such a basic aspect of the daily life as food is has a particular sense for the Muslims, since in Islam it is required the consumption only of halal food, fact explicitly mentioned in the Qur'an – the Holy book of Muslims [2, 3]. So, halal food is the food accepted according the Islamic Law, the food not permitted for consumption being known as haram food. Halal food refer to the ban of consumption of alcoholic drinks, pork, blood, gelatine, L-

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cysteine (if from human hair), lard, dead meat, non-halal animal fat, meat that was not slaughtered in accordance with Islamic rules. It is of a great importance to mention the fact that halal food is also about the production in a clean environment in order to get a safe nourishment to be consumed.

Halal food is the food which accomplishes three features [4]:

- (1) has no element in its composition which is not allowed, as stated by the Islamic Law:
- (2) has been prepared, processed, kept and transported by the usage of practices or equipments which are in accordance to the Islamic Law;
- (3) has not been contaminated through direct contact with any other food that do not accomplish points (1) and (2), during preparation, processing, transportation and storage.

Consequently, it results that halal food can be prepared, processed, transported and stored under some auspices as non halal food (haram), but with specific measures that should be taken, in order to avoid any type of direct contact and referring to cleaning actions of facilities.

In this present, ruled by globalization, halal food market is a great opportunity for food producers and carriers all over the world, not only for the ones from Muslim countries. In this framework, the trueness of halal food products is a subject of real concern for Muslim consumers, either they live in Muslim or non-Muslim countries, either they travel as tourists or with business.

In our modern time, food industry is strongly based on technology, many processes being involved in food production. Moreover, food is transported, by different means, on short or long distances; these realities pushed halal food consumers to be careful with their foodstuff. On the other hand, food producers and carriers had to adapt their activities to the Islamic Law, if they want to become successful on such an attractive market. Many of consumers should be assured that their food is not contaminated during transportation, since they are not satisfied only by the information on the food label. Thus, many exporters addressing to halal food consumers, are interested to meet religious compliance referring to transportation, in order to establish the credibility of this service [5]. Non-Muslim carriers must understand that there is no halal without halal supply chain and must act accordingly.

2. Method

It was shown, above, the interest to assure that halal food is not contaminated during transport, potential factors of risk being met in several aspects as: equipment and tools, personnel involved, direct contact with haram food. Halal supply chain is given by the sum of entities involved in the movement of the halal goods from suppliers to consumers. It is the guarantor for a transport service free from contamination [6].

As might be clearly seen in Figure 1, carriers are encountered several times on the route of the goods.

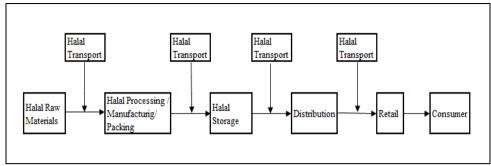


Figure 1. Layout of halal food supply chain.

It results that the status of fully halal food is in strong connection with transport services, fact which leads to dedicated transportation, featured by [7]:

- avoiding the mix with non-halal (haram) products through segregation or separate transportation of goods,
- cleaning and disinfection of equipments, when non-halal products were transported previously,
- dedicated personnel.

Over sea transport is one of the main parts of the global trade, that is why maritime sector is highly interested in halal food transport, that involves even adequate maritime infrastructures and ancillary services such as ports with terminals used only for halal food, companies specialized in providing halal freight forwarding, halal cold chain logistics, halal storage, trade financing based on Islamic Law, insurance services for halal products, legal assistance in Islamic jurisprudence [8, 9]. Marine carriers are used in the transport of perishables (such as foodstuffs) at temperatures below the environmental temperature, in order to avoid spoilage of products as vegetables, meat or dairy products.

3. Results and discussion

Refrigerated food must be transported at temperatures in the range $+2 \div +6^{\circ}\text{C}$ while frozen food in the range $-25 \div -10^{\circ}\text{C}$; food is transported at specific temperatures that avoid spoilage and do not affect human health. The most common refrigeration system met in transportation is vapour compression, technology that requires mainly two heat exchangers (an evaporator and a condenser), a compressor and a throttling valve.

Since halal is a way of life, addressing to different aspects of the cotidianity, such as environment, it is important to mention that these systems work with refrigerants that accomplish not only thermodynamic requirements (such as evaporation temperature level, adiabatic coefficient, latent heat, heat transfer coefficients, etc.), but also environmental aspects (as null Ozone Depletion Potential or low Global Warming Potential).

Thus, in vapour compression refrigeration systems will be encountered natural refrigerants (as NH_3) or HFCs (as R134a, R404A, R407C, R410A, etc.).

When approaching the halal food market, non-Muslim carriers have to change the way they look at their own business – in order to be able to accomplish halal food chain demands.

It is about the top management stuff that needs to have a *new vision* of their actions – meaning new policies and practices regarding the understanding of the challenge, the management or technical guidance. Also, different management compartments have to show a *supportive attitude* to all the employees, by providing a clear direction and indications for this new activity (halal food transportation) for the better understanding of each ones role, in the process.

A considerable obstacle in achieving the purpose of halal food transport is the sum of *environmental inputs*, given by the necessity of considering special training of the personnel, assurance of a friendly working place, analysis of the market and considering its dynamic feature.

In this new scenario, the human aspect is not neglectable at all. *The consent of the personnel*, at any level, is a pylon of the success of the company in the halal food transport business. Mainly it is about acceptance of the new roadmap of the company, which might bring a lot of changes for the non-Muslim workers, in comparison with their classic activities. Employees should be familiarized with the concept of 'halal food', during specific training programs.

Not lastly, new entries on halal food transport sector should adopt *Halal Assurance System (HAS)* – a system able to describe exactly procedures to be followed when intending to be part in providing halal food to consumer, without risks of contamination during transport services. From this perspective, it is about the focus of the companies on risk assessment, facilities, technology and infrastructure.

Vulnerability during maritime transport is no more a matter of concern when the transport service is dedicated, or when containerisation is used.

In Figure 2 it is given a schematic representation of the main aspects on which relies a new business in the halal food maritime transport sector.

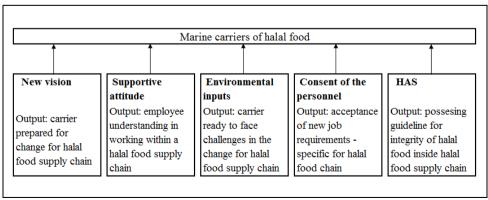


Figure 2. Pylons of halal food maritime transport business.

Each of these components of the new strategy has its outcome, the fulfilment of this ensemble allowing to the marine carrier to take its place in the halal food supply chain.

4. Conclusions

This study points out the importance of transport in halal food supply chain – the guarantor of the halal food integrity. Halal food market has shown its attractiveness in the era of globalization – in which import and export services are stimulated.

In order to be successful on such a market, carriers from non-Muslim countries have to be aware on the particularities of a dedicated transport and to fulfil the requirements.

In this study have been described the major aspects that should consider a business dealing with halal food transport, important to be known by a non-Muslim company, especially when this is new on the market: new vision, supportive attitude, environmental aspects, consent of the personnel and adopting of Halal Assurance System. Each of these has its own output, stated in the paper, their accomplishment offering the access to the carriers to halal food supply chain. The paper was mainly on over sea carriers, due the importance of maritime transport for own modern society.

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