

## Product Recall Management for *Halal* Product

<sup>1</sup>Zurina Shafii, <sup>2</sup>Syahidawati Shahwan, <sup>3</sup>Nurul Aini Muhamed, <sup>4</sup>Hasnizam Hashim, <sup>5</sup>Mohd Fauzi Mohd. Amin, <sup>5</sup>Alina Abdul Rahim, <sup>6</sup>Yunus Abd. Aziz, <sup>7</sup>Kamaruzaman Jusoff and <sup>8</sup>Siti Zamanira Mat Zaib

<sup>1</sup>Islamic Finance and Wealth Management Institute (IFWMI)

<sup>1,2,3,8</sup>Faculty of Economics and Muamalat

<sup>4,6</sup>Faculty of Shariah and Law

<sup>5</sup>Faculty of Quranic and Sunnah Studies

<sup>3,5</sup>Institute for *Halal* Research Management (IHRAM) Universiti Sains Islam Malaysia,  
71800, Bandar Baru Nilai, Negeri Sembilan, Malaysia

<sup>7</sup>Department of Forest Production, Faculty of Forestry, Universiti Putra Malaysia,  
43400 UPM Serdang, Selangor, Malaysia

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**Abstract:** Product recalls are damaging to companies due to its effects to financial performance as well as the image of the company. Product recall management is the final step of traceability system in a company. When the incidence of product recall happens, a company must have a good recall management system that works as the last defense to the company's image. This study examines the product recall management in two companies operating in *Halal* industry. The objective of this study is to examine the implementation of *Halal* traceability measures and recall programs in the companies under the study. This study employed case study method to obtain data from two companies operating in *Halal* industry; one is a manufacturing of *Halal* product while another is a slaughterhouse. This study provides analysis on *Halal* traceability system implemented by two companies and the procedure of food recall produced by Jabatan Kemajuan Islam Malaysia (JAKIM). Findings of the study indicate that both of the surveyed companies practiced seven elements of traceability system to prevent them from involving in the incidence of food recall. The results also imply that food recall management and *Halal* traceability implementation are important in order to maintain the company from receiving negative impacts of food recall. Future comparative research on the similarities between food recall in *Halal* food and non-*Halal* food industry could be conducted to improve the product recall management in the *Halal* industry.

**Key words:** Product recall • Recall management • *Halal* product

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### INTRODUCTION

According to Souiden and Pons [1] product recalls have continued to increase over the last two decades. For an example, in January 2008, the U.S. Consumer Product Safety Commission's website has listed over 30 types of products from air compressors to toy train sets. Similarly, the U.S. Food & Drug Administration's (FDA) website listed over 20 recalls market withdrawals and safety alerts was recorded in January 2008. In Malaysia, as the main authoritative body on *Halal* issues in Malaysia, JAKIM recalls products that breached the *Halal* compliance requirements. From year 2010 until

March 2012, JAKIM recalled 39 products and revoked the *Halal* status of 10 hotels and premises and 1 slaughterhouse [2].

Recall is the process of fast and efficient removal of questionable food from the supply chain and reaching consumers [3]. Company's involved should remove the product from the market, which may make some people ill or harm, like unsafe or violative food product and has potentially adverse effects of a contaminated, adulterated, or misbranded product. According to Chu *et al.* [4], product recalls ordinarily occur when a product contains a defect that: a) could generate a substantial danger to consumers; b) involves hazardous material that could

create severe exposure to consumers; c) may cause a potential risk of serious injury or death from improper use; or d) violates a consumer product safety standard or regulation. A company can make a decision to make a recall, but a government agency can force the company to recall potentially misleading and/or hazardous product from distribution and marketing [5]. According to Davidson and Worrell [6], there is only a limited evidence showing that government-ordered recalls produce more negative returns than voluntary recalls. They also found negative abnormal returns for these announcements and that the returns are significantly more negative when products are replaced (or the purchase price is returned) than when the products are checked and repaired. With such awareness, this research aims to examine the implementation of *Halal* traceability measures and recall programs in the companies under the study.

**Purpose of Recall:** Purpose of the recall is to stop the delivery and sale of the product in question and remove it from the marketplace by informing to the appropriate regulatory agencies [3]. A company recalling a product is responsible for notifying all customers who bought the affected products and returned to the processors' or distributors' control or other designated area as instructed in the recall notification [7].

**Responsible Agency to Carry Out Food Recall:** According to Kucera [8], there are many parties that may involved in carrying out a food recall such as manufacturers of the adulterated finished product, suppliers of ingredients and distributors. Besides, regulatory agencies such as federal and state government, Ministry of Health also may play a role to assist company to recall product. On the other hand, media and consumer also may join to administer product recall from the marketplace. Moreover, warehouses and retail stores can be a part of responsible bodies in recalling a product.

**Function of Recall Programs:** The function of recall program is to remove products from the market quickly and effectively to every food producer and distributor. It is a written action plan that is carefully constructed, tested and evaluated to ensure efficiency. It works as the safety net that can prevent consumers from buying or eating a potentially harmful food product [7].

**Procedure to Recall/Parts of Recall:** A recall program consists of ten measures. Firstly, company should create a recall management team. When an unsafe food product

has been identified, it must be removed from the market quickly. Second, the company must prepare a complaint file. If the company receive a complaint, it is important for them to record the complaint information, undertake an investigation at storage facility and contact the regulatory authority. Early action enables company to discontinue the product distribution until the product is determined as safe. Next is preparing recall contact list. Recalled product records should contain a description of the product recalled such as brand and product name, size, identification codes, the amount of product recalled, the date the product was recalled and the action taken with the product [9].

Besides that, the company also should prepare a traceability system. Traceability system can assist the producers to decide where the product is in the supply chain because it includes the history, application, use and location of the product. It is also able to track a food item forward and backward through supply chain and automatically can help to control cost by reducing the amount of product recall or destroyed [3]. The company also may create recall procedures. There are several activities that happen simultaneously during a recall. Having a step-by step recall procedure will ensure that all of the activities are completed [7].

The company must ensure that the affected product should be removed from the marketplace. The company should have a record on how many products have been sold and how many are still in the premises. This step can ensure that all customers are notified of the recall. This process refers to the documentation of the quantity (a lot) of each type of manufactured products. Next is shipping and sales records. The company must maintain accurate shipping and/or sales records. This documentation is crucial because it can allow a company to limit the recall only to the specific customers who received the affected products. The next measure is recalled product records. If the company suspects that it has sold or distributed an unsafe food product, the company should contact regulatory agencies immediately, as they can assist with an investigation and the collection of information. This can help the company to make right decision. A recall program should contain a contact list with the names, phone and fax numbers of the appropriate regulatory agencies [7].

The company is responsible to notify all customers who bought the affected products. They should also verify that all customers have stopped the distribution of the affected products and that all recalled products have been returned to the processors' or distributors' control

or other designated area as instructed in the recall notification. The final measure of a recall program is testing. Mock recalls test a company's ability to recall products without actually recalling them. Mock recalls are strongly suggested and should be tested on a regular basis. The goal is to be able to identify every affected lot, know exactly where it is at any point in the process and know who to contact to bring it back. A mock recall can be an eye-opener to the manufacturers as the result from mock recall may demonstrate that they are not as prepared as they thought. All of these elements should be included into recall program because it plays a specific role and provides a different benefit to company [9].

**Product Recall Procedures of JAKIM:** There are two actions taken by Jabatan Kemajuan Islam Malaysia (JAKIM) [10] if companies make a serious offence towards *Halal* procedures. These two actions are suspension or withdrawal of *Halal* certificate and recall of the *Halal* product. Suspension and revocation of *Halal* certification can only be made against the company which carries *Halal* certificate of Malaysia that made serious mistakes.

**Suspension and Revocation Procedure of Halal Confirmation Certificate of Malaysia (HCCM):** First, copies of the monitoring notice and the suspension notice of HCCM should be submitted to the company's management. The notices indicate offenses that have been committed by company. Then, the HCCM officer must provide monitoring results and inspection reports and state the offenses committed by the company not later than 3 working days. The report will be submitted to the Chief Assistant Director of Monitoring and Enforcement Branch CAD (ME) with accompanying original and a copy of HCCM Notice of Suspension. In certain cases, CAD (ME) may use his discretion to judge the subject matter after he is being given explanation and proof of the case shown by the company. In this case, a CAD (ME) may return or issue a directive action to conduct inspections of monitoring whether the company has taken corrective action as directed by the *Halal* Certification Panel.

CAD (ME) will present their findings to the Panel of *Halal* report for any of the following decisions: a) The *Halal* certificate is returned; or b) *Halal* certificate is withdrawn. If the Panel decides to invoke the *Halal* certificate, *Halal* certificate surrender notice of the *Halal* Certificate will be signed by both the company and the officer in-charge. If the Panel decides to withdraw the *Halal* certificate, a formal letter will be issued to the

company informing the decision of the panel. The letter should state: a) Withdrawal of HCCM and ban the use of the logo on the product / premises, b) The effective date, c) The serial number HCCM, d) The reference number HCCM, e) The appeal shall be made, f) Prohibition on the use of *Halal* logo on the product / premises and g) Instructions to destruct the perishable products (perishable) in batch production (batch) or withdrawal of products in the market for other products. The Company may make an objection or explanation within 14 working days from the date the decision is made.

**Procedures for Product Recalls adopted by JAKIM:** JAKIM adopts nine procedures for its product recall practice. First, company must have written procedures on recall system to ensure identification of product recalls from the market. JAKIM will recall the products for certain reasons such as detecting illegal elements, fosterage, or pollution in the products. JAKIM also may initiate recall if it receives complaints from consumers on *Halal* status. JAKIM also will act upon the directives from other relevant authoritative bodies. Second, examiners must ensure that the company withdraws all its distributed products in (batches) either from the agents or distributors. Third, examiners must ensure that the company initiates the recall immediately upon evidence in the condition (first procedure). Fourth, if the examiner is not satisfied with the action of recalls made by the company or found that the product is still in the market, the company will be asked to make public announcements. If the company refuses to make public announcements, then JAKIM should do so. Fifth, a copy of the order of recalls shall be sent to the Ministry of Domestic Trade, Cooperatives and Consumerism (Kementerian Perdagangan Dalam Negeri Koperasi dan Kepenggunaan/KPDNKK) and the Ministry of Health (Kementerian Kesihatan Malaysia/KKM) or other relevant agencies. Sixth, if the company refuses to follow the order, then JAKIM should withdraw the *Halal* Certificate, or make a public announcement and finally enforce the law on the company. Seventh, the examiner shall ensure that the company takes action against the product recall using appropriate or available methods such as disposal, repair or re-process. Eighth, the examiner shall make a review on the record of recalled product in terms of product, brand, date, process, product number, method of recalls and the actions of the recalled products. Ninth, any destruction action of recalled products shall be supervised by JAKIM/ JAIN's officers or related agencies [10].

Table 1: Non Conformance Report for product, food premise and logistic

No	Non-Conformance Report for Product, Food Premise and Logistic
1	Mixing of <i>Halal</i> and non <i>Halal</i> ingredients in the same store in which no physical separation
2	Packaging and labeling is not accordance to Islamic law
3	Use term that is misleading. E.g. bacon, hot dogs, bak kut teh, beer, ham, etc
4	Processing of <i>Halal</i> and non- <i>Halal</i> products
5	List of ingredients / raw materials, which does not have <i>Halal</i> certification
6	Do not have internal <i>Halal</i> committee
7	Do not have enough Malaysian Muslim employees
8	The product contains ingredients that are not <i>Halal</i>
9	Use a brush from animal base
10	There is a tool of religious worship in the food processing area / premises
11	List of ingredients is not declared on the application
12	There are animals in the area of the premises
13	Questionable ingredients- <i>Halal</i> certificate is not recognized
14	Use clean equipment is mixed in the premise
15	Accessibility for <i>Halal</i> and non <i>Halal</i> kitchen is the same
16	Wine routes in partnership with <i>Halal</i> kitchen route
17	There are essential elements of wine and beer in the kitchen area clean
18	There is misuse of the logo in the kitchen / restaurant that is not certified kosher
19	There is misuse of the <i>Halal</i> logo on products that do not have <i>Halal</i> certification
20	Floor in the production area is broken and hollow
21	Processing area is not clean
22	Light in the production area is not covered
23	There are holes in the ceiling in the production area
24	Wall in the production area is not clean
25	Drains are not cleaned and properly maintained
26	There are hostel in the premises
27	Employees do not inject by Anti-Typhoid injection or an Anti-Typhoid vaccination record has expired
28	Cigarettes are found on the premises. There is drinking water in the processing are
29	Cloth is not suitable (employees wearing shorts during food processing)
30	Employees did not wearing hair net
31	Workers wearing slipper in the processing area
32	Employees are wearing a ring and watch during handling / food processing
33	Layout of equipment in storage and processing areas is do not tidy
34	Carry out the processing with another contract which is not <i>Halal</i>
35	The premises are not fenced
36	Pest Control is not implemented according to schedule
37	Workers do not participated in food handling course
38	Finished products and raw materials are not separated and kept in the the same area
39	No segregation for storage of wet and dry materials Source: Jabatan Kemajuan Islam Malaysia (2012)

Table 2: Non-Conformance report (NCR for Slaughterhouse

No	Non-Conformance Report (NCR) for Slaughterhouse
1	Slaughter man does not have a slaughtering certificate or expired
2	Box control for electric voltage is not locked. Electrical voltage rate does not comply with the limit
3	No <i>Halal</i> checkers during the slaughtering process
4	Improperly slaughtered animals is not labeled and clearly separated
5	Unclean abattoirs
6	Blunt knife

Source: Jabatan Kemajuan Islam Malaysia (2012)

Non-Conformance Incident for Product, Food Premise, Logistic and Slaughtering: There are two types of non-conformance report (NCR) produced by JAKIM, a) NCR for food premise and logistic and b) NCR for

slaughterhouse. Table 1 lists the incidence usually found during *Halal* audit of products, food premises and logistics.

Table 2 lists the non-conformance report for slaughterhouse establishments. These are the incidences usually found out by JAKIM's officers when they conduct audit in the slaughterhouse premises.

#### Relationships Between Traceability and Product Recall:

Traceability means an ability to track any food, feed, food producing animal or substance that will be used for consumption, through all stages of production, processing and distribution [11]. Traceability system can assist the producers to determine the location of the

product in the supply chain since the system retains and traces the information related to history, application, use and location of the product. The system must be able to track a food item forward and backward through supply chain and automatically can help to control costs by reducing the amount of product recall or being destroyed [3]. Rickard [12] indicates that when product is received, information regarding product type, lot number and the name of the shipping and transporting companies will be captured with a bar code scanner and then will be recorded. There is important for each manufacturers and distributors to develop their traceability policies as key information to find and remove product from the marketplace [7]. According to Zailani *et al.* [13], traceability and tracking systems function as tools for communication, making information available along the supply chain.

## MATERIALS AND METHODS

This study implemented a case study method, using interviews with the personnel within the companies to gain deeper understanding of the management, production and, practices and processes systems. Silver Bird Group Berhad and Farm's Best Food Industries Sdn. Bhd. were selected as the samples. Silver Bird is a company listed on the main board of Shariah-approved securities on Bursa Malaysia. Silver Bird was established in 1960 and has had an experience in bread and confectionary for about 51 years. Silver Bird has applied a traceability system in their production and management processes [14].

As for the second company, Farm's Best Food Industries Sdn Bhd was incorporated as a private limited company on 26<sup>th</sup> May 1984 under the name of Iklim Sinar Sdn. Bhd. On 21<sup>st</sup> June 1994, the company was converted to a public company and changed its name to Iklim Sinar Berhad. On 1<sup>st</sup> December 1994, the Company again changed its name to Sinmah Resources Berhad and subsequently was included in the Official List of the Second Board of Bursa Saham Malaysia Securities Berhad on 18<sup>th</sup> May 1995. On 11<sup>th</sup> July 2005, the Company changed its name to its present name of "Farm's Best" and to reflect the Company's activities and ownership. The trademark was registered under the name of the Company's activities and ownership, Company's subsidiary, Farm's Best Food Industries Sdn. Bhd [15].

## RESULTS AND DISCUSSION

Adoption of *Halal* Traceability Elements in Companies under the Study: From the interviews with the *Halal* Committee members as well as field visits to both companies, we found that both companies adopt *Halal* traceability measures which are used to prevent revocation of *Halal* certificate and recall of products. Findings traced seven process of traceability system used by the two samples of companies.

**Silver Bird Berhad Group:** From the interviews, the researchers found that the company uses seven elements of traceability system in its management and production processes. According to the General Manager of the company, a traceability system has been implemented in the company's production several years ago. It was applied to ensure high quality of their products and was in line with the market requirements compared to other companies. Indirectly, this system protected the company's reputation and increased customers' confidence. They were also aware on a rising market demand for healthy food which also indicates requirements for a well-structured traceability system. In addition, the system may also help them in maintaining their branding, ingredients, *Halal* compliance and their reputation.

The management of the company felt that *Halal* certification affects the company's net profit. The reason is that Muslim customers will buy their products because these products carry the *Halal* certificate issued by JAKIM. Because of this, the company ensured that the *Halal* certification is issued by relevant authority which is JAKIM and not from other existing private companies issuing *Halal* certificates. *Halal* certification will also provide a valid check for users to ensure the *Halal* food status. In terms of food safety, *Halal* Food Standard such as Malaysian Standard MS 1500: 2004 *Halal* Food - Production, Preparation, Handling and Storage is used as a guide to maintain the process flows.

**Certification:** All of the company's products were certified *Halal* and got *Halal* certification from JAKIM. Before they start the production for a new product, the Quality Assurance (QA) department will send a list of new products together with a list of ingredients used and the source of the ingredients to the *Halal* committee for *Halal* approval. The *Halal* committee will verify materials used

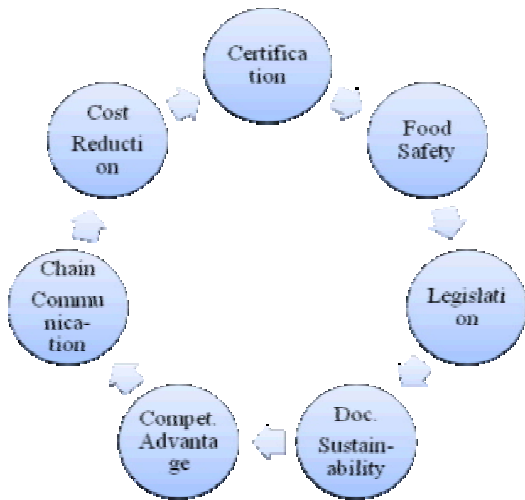


Fig. 1: The Traceability System

with JAKIM to see if all the materials to be used are certified *Halal* by JAKIM. The QA department will then proceed with the production processes and at the same time the committee will apply for the *Halal* certification from JAKIM. The process of *Halal* certification application, in case of the company, took about 6 months for approval. As for JAKIM, it adheres to the ISO 9001: 2008 Guideline and delays on the issuance of *Halal* certificates only arise when the documents indicating the *Halal* status of all ingredients were incomplete.

**Food Safety:** For safety and hygiene, the company has introduced the food safety policy in order to ensure that all the products achieve customers' satisfaction and confidence. The manufacturing and processing of bakery and confectionary products were also involved in controlling of raw materials, the production processes and ensuring that the products are safe for customer. The food safety policies of this company: (a) committed to maintain the effectiveness of Food Safety Management System (ISO 22000:2005) through monitoring and reviewing of the actual performance of established food safety objectives, (b) conform to the legislation, regulation and relevant standard codes related to food safety, (c) continually improve the operation through adopting of effective Food Safety Management System (ISO 22000:2005) requirement whilst incorporating research and development, (d) be at the forefront of product innovation and creativity to ensure further commitment to food safety while being result oriented at all times and (e) keeping the policy at strategic locations and communicated to all level of organization.

**Legislation:** The company has conformed to the ISO22000:2005 for Food Safety Management System assessed by Lloyd's Register Quality Assurance, United Kingdom which enhances their processing quality and hygiene standards. This company also uses HACCP and Malaysian Standard MS 1500: 2004 *Halal* Food - Production, Preparation, Handling and Storage - General Guidelines as a guideline for production and processing of products.

**Documentation Sustainability:** Sustainability in documentation is very important in order to maintain effective traceability system. The company uses a documentation system during processing and production which is very systematic and allows them to identify the problems and causes of these problems. This system is also centralized, making it easier for officers to control the system and keep important documents and information in the system.

**Competitive Advantage:** The company also markets its products to the United Arab Emirates (UAE) and other countries. Every year, two or three new products are introduced. This company also uses high technology in order to produce their products with lower cost and shorter operation time. In Singapore, this brand is one of the popular products for bakery and confectionary. The Group Managing Director said '*Right now, we are Halal but we want to concentrate on it more. Our export market is 25 percent, but with this new concentration we aim to grow more*'. This is one of the moves made by this company in expanding their market and realizing the fact that most of their customers in Malaysia are Muslims.

**Chain Communication:** Companies need to understand that customers stand for their own ideals. As producers and manufacturers, they must strive to understand that worldwide consumers' demand is changing and ask themselves how they can be a part of it. For the success of the production and to the company, they should always receive feedback from consumers to enhance and improve the quality of their products. Companies should also have a strong relationship with relevant authorities such as JAKIM, the Ministry of Health (MOH), Universiti Putra Malaysia (UPM) and other institutions in order to guide those regarding *Halal* issues. When problems on *Halal* matters arise, they should refer to JAKIM to ensure that decisions taken are appropriate and do not violate ethics or procedures of *Halal* certifications.

**Labor/Cost Reduction:** The use of technology during the production is strength to the company and it also helps them in reducing the cost of production. Labors are only used at the end of the production line. Labor capacity is also reduced during the other line of production, because of the high temperature and factory's rules that itself that concern of the hygiene environment. A combination of sophisticated European and Japanese Technology is also employed in this factory. This is to ensure that the highest level of production standards needed to deliver the quality products for the market demands is used. The usage of traceability system in this company also ensures them to reduce their cost by reducing time when the problem occurred and saving time in tracing the cause of the problem. The cost of implementing traceability is significant, but the cost of not having one can be far higher. The cost of not having a traceable system is considered as export barrier and a limitation to market access. Traceability has already become a minimum cost of entry into international business.

**Farm's Best Food Industries Sdn. Bhd:** According to MS1500:2009:- *Halal* Food Production, Preparation, Handling and Storage - General Guidelines mentioned that management of the company may appoint Muslim *Halal* Executive or establish *Halal* committee to implement and supervise *Halal* activities in the company [16]. In the case of this company, it has *Halal* Committee to oversee the *Halal* requirements in the company. From the interviews and field visit, researchers found that the company uses seven elements of traceability system in the management and production processes of the company, as discussed below.

**Certification:** Mohd Zaini Shahri Ahmad, the Assistant Manager for administration of the company reports that the company has 52 products which all products are certified *Halal* by Jabatan Agama Islam Melaka (JAIM). They deal with JAIM to apply *Halal* certification and obtained the *Halal* certification from JAKIM. The *Halal* certification is valid for two years. For them, they can trace the *Halal* traceability through *Halal* certification, because they also submit certificates of raw materials used in the production from the suppliers to JAIM. All *Halal* certification from suppliers are used as evidence and supporting documents for their *Halal* certificate application to JAKIM.

**Food Safety:** Muhammad Hafidz Bin Ahmad, the *Halal* Executive of the company states that the company created its own *Halal* system to trace the product, from where and to where (forward and backward) traceability. The company established the Quality Control department to control food safety and has been awarded ISO 9001 2000, as they are very strict in food safety. They record all products details from procurement stage until product distribution using bar code or manually. According to them, both food quality and safety were important to food products and they should aware in ensuring consumers to satisfy with their products' quality.

**Legislation:** The company uses Malaysian Standard MS 1500:2009: *Halal* Food Production, Preparation, Handling and Storage - General Guidelines, Second Revision and 'Manual Prosedur Pensijilan *Halal* Malaysia 2011', Second Revision as references and guidelines to implement *Halal* system in the company.

**Documentation Sustainability:** The documentation works as a tool or a process to be referred to during production. The company records all details related to their products from raw material to delivering process. For example, they record the number of chicken received from the supplier and segregate the number of *Halal* chicken from non-*Halal* chicken after slaughtering.

**Competitive Advantage:** Farm's Best has many competitors. In order to create a competitive advantage, the company is required to be progressive, innovative and to be able to discover the best competitive opportunities. The company continues to improve the quality of its products and processes. To achieve its goal, a company utilizes traceability as an internal management tool and as a source of competitive advantage.

**Chain Communication:** Communication is an important strategic tool to differentiate between companies. The company is well-prepared to face customers' complaint using its *Halal* traceability system. The management records all procedures and hires consultant to create software on Food Production System (FPS). Through communication, this company can get feedback easily from customers about their products.

**Labor Cost/Cost Reduction:** Cost reduction can be achieved by reducing cost of production and management activities. The company reduces the cost by ensuring that they are implementing systematic traceability system and efficient utilization of resources during all the process. For instance, they use their own transportation network in order to reduce transportation cost as well as to ensure *Halal* status of the transportation.

### CONCLUSION

Traceability system can reduce costs of removing products from the marketplace. Food producers may implement the seven elements of traceability as well as the effective product recall management to ensure the safety and the *Halal* status of the products in their own approaches. Preventing the occurrence of product recalls, particularly in terms of *Halal* assurance, will lead to high level of customers' confidence towards *Halal* integrity in the *Halal* industry. This in turn will positively boost *Halal* hub development in Malaysia.

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