DEVELOPING A PROTOTYPE MODEL OF HALAL AUDIT CHECKLIST IN HALAL WAREHOUSE: COMPLIANCE TO MS2400-2:2019 PART 2 OF HALAL WAREHOUSING

(Membangunkan Prototype System Semakan Penilaian Halal Untuk Gudang Halal: Pematuhan Mengikut MS2400: 2010 Bahagian 2 untuk Perkhidmatan Gudang Halal

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**Abstract**

Compliance in MS 2400:2019 (Part 2) Halal Warehousing provides the prevention of risk of cross contamination that result from shared facilities, inefficient hygiene procedure and unauthorized handling process. The purpose of this paper is to develop a prototype model of Halal Audit Checklist for Halal Warehouse Services to facilitate the warehouse operators for the halal compliance audit preparation and to sustain in the halal business operation**.** The prototype model checklist was developed after a thorough study on the requirements outlined by the Malaysian Standard (MS2400:2019: Part 2). An observation and interview were conducted with the Halal Logistics Services Providers to determine the current issues and requirement needed for the prototype development. Findings revealed that the prototype development will help organizations to identify the gaps that exist in their management systems and the level of effort that will be required to bring their management system into the conformance with the MS2400:2 standard of Halal Warehousing.

**Keyword**: halal warehousing, prototype, critical control point, halal audit checklist

**Abstract**

Pematuhan pada MS 2400: 2019 (Bahagian 2) Pergudangan Halal menyediakan pencegahan dari risiko pencemaran hasil daripada perkongsian fasiliti, prosedur kebersihan yang tidak cekap dan proses pengendalian yang tidak dibenarkan. Tujuan kertas kerja ini adalah untuk membangunkan model prototaip mengikut Daftar Semakan Audit Halal untuk Perkhidmatan Gudang Halal bagi memudahkan pengendali gudang untuk penyediaan audit pematuhan halal dan untuk mengekalkan operasi perniagaan halal. Senarai semakan model prototaip dibangunkan selepas kajian menyeluruh di lakukan tentang keperluan yang digariskan oleh Standard Malaysia (MS2400: 2019: Bahagian 2). Pemerhatian dan temubual dilakukan dengan syarikat perkhidmatan lojistik halal untuk menentukan isu dan keperluan semasa yang diperlukan untuk pembangunan prototaip. Penemuan mendedahkan bahawa pembangunan prototaip akan membantu organisasi untuk mengenal pasti jurang yang ada dalam sistem pengurusan mereka dan tahap usaha yang diperlukan untuk membawa sistem pengurusan mereka selaras dengan MS2400: 2 standard Halal Warehousing.

**Kata kunci:** gudang halal, prototaip, titik kawalan kritikal, senarai semakan audit halal

**Introduction**

Halal and Toyyib, are both in Arabic terms that describe the main requirement of halal food production and consumption. According to Department of Islamic Development Malaysia (JAKIM), halal means “allowed or permitted by Islamic Law” and not only encompasses on the food and drink consumption, but all matters of the daily life. Toyyiban is defined as highest quality in the halal concept (Al-Mazeedi, Regenstein, & Riaz, 2013), means “good” “not damaged” or “wholesome”. Halalan Toyyiban can be described as something that is not only halal, but also good and wholesome. The expansion of the halal concept into a product has now extended to include the movement of the halal products along in the supply chain process. This means that the process of producing halal products does not only involves the production processes, but also involves all supply chain activities comprise of other activities such as supply, handling, storage, warehousing, manufacturing and transportation activities (Tieman, Che Ghazali, & van der Vorst, 2013). Therefore, Halalan-Toyyiban Supply Chain Management can be defined as the management of a halal network with the objective to extend the halal integrity from the main source to the point of consumer purchase (Manzouri, Nizam, & Rahman, 2013). However, there are many challengers to implement the halal supply chain management as the movement of the halal products involving many different parties and custody (Zulfakar, Anuar, & Talib, 2014). There is no guarantee that the halal food products is halal throughout the supply chain process if there is no commitment among the parties involved in the supply chain activities (Tarmizi, Kamarulzaman, & Latiff, 2014). Based on previous studies, by having the halal certification in the supply chain activities such as the transportation or warehousing will help to guarantee the halal status of the products (Ngah, Zainuddin, & Thurasamy, 2014)(Alqudsi, 2014). Nevertheless, the requirement to apply for the halal certification for the supply chain activities require a lot of improvement in terms of SOPs for daily operation, premises modification and the usage and segregation of the equipment and facilities. In addition, the requirement of halal certification requires a full commitment from the top management along with the support from the whole operational staffs that involved in the company daily operation. Henceforth, the purpose of this study is to describe the stages of the process involved in the development of prototype model of halal audit checklist for halal warehousing services. It is recommended that the prototype model development will enhance the halal warehouse operation and other supply chain activities.

**Literature Review**

According to the term of information system, a prototype model can be define as the early version of a system that exhibit the essential features of the later operational system (Jacxsens et al., 2010). Some information system prototypes may evolve into the actual production system whereas other are used only for experimentation and maybe eventually replaced by other beneficial system (Asioli, Boecker, & Canavari, 2014). Based on the study, the prototype model of the halal audit checklist was being developed for the practices of in-house audit checklist of the internal halal warehouse operation. The halal audit checklist was developed based on the requirement and compliance of the Malaysia Standard of Halal Warehouse (MS 2400:2010 Part 2 of Halal Warehouse). Warehousing is a one of the key components of Halal Logistics besides transportation and terminal operations. In logistics, normally goods will be in the warehouse or storage longer than its movements and transformation process to the other parties (Bruil, 2011). Hence, this is an important argument to address the Halal compliance for the storage and the warehousing activities. As described by (Tieman, 2012), Halal logistics have similar activities with conventional logistics activities. The difference between them is that the traditional warehouse focuses on cost reduction, whereas Halal warehouse concern on to maintain the Halal-ness of Halal product. However, we believe that, as a business organization, a Halal warehouse is also based on profit oriented. Therefore, the focus of the halal warehouse operation will be on the Halal-ness without leave, it behind the cost optimization. This situation had become challenging to the halal warehouse operations. The operational process between Halal warehouse and conventional warehouse are quite similar and more a less are the same process (receiving, put away, storage, cross-docking, order picking and shipping). Segregation of Halal and non-Halal food products must be highly practiced avoiding cross contamination with non halal and hazardous element. The audit and assessment in warehouse operation is crucial in ensuring the customer will gets the right product at the right time with the right condition (Aliff et al., 2015). To fulfil the customer satisfaction and loyalty, it is emphasizing that the warehouse providers to apply the accuracy, quality, timeliness, and cost effectiveness of the processes controlled. Therefore, the development of the prototype model of the halal audit checklist will helps the warehouse provider to improve their operation and at the same time will prevent the risk of contaminants of the halal food product during the storage and transportation.

**Materials and Methods**

The prototype model checklist was developed after a thorough study on the requirements outlined by the Malaysian Standard (MS2400:2019: Part 2). In addition, an observation and interview were conducted with Halal Logistics Services Provider to determine the current issues faced by them during the warehouse operation. The interview conducted also help to identify the requirement and any suggestion needed for the prototype development (Mak & Shen, 2012). In each organization, an interview with the operational staff and the managerial level were conducted. Indeed, an observation was conducted to familiarize with the actual operation in the halal warehouse premises. However, the study only managed to observe two warehouse premises based on the approval from the management of the organization. In each interview, probing techniques were used to obtain qualitative and complete understanding on the issues and challengers in compliance to MS 2400: 2019 (Part 2) and also on the opportunities, problems, benefits, suggestion shortcoming of the prototypes (Burns, N. & Grove, 2003). Table 1 describes the background of the respondents in the study.

Table 1: Background of the Respondents

|  |  |  |  |
| --- | --- | --- | --- |
| Position | Company | Background of Industry | Working Experience  |
| Assistant Vice President  | A | Logistics | 17 |
| Logistics Manager  | B | Logistics | 8 |
| Compliance Manager  | C | Logistics | 8 |
| Halal Executive | D | Distribution Centre | 3 |
| Compliance Executive | E | Distribution Centre | 7 |
| Head of Operation  | F | Logistics | 9 |

Based on the interview, the study had identified the main problem; challengers and issues faced the warehouse provider in their daily operation. Hence, the information from the interview had given an idea and solution to develop the halal audit checklist that match with the warehouse operation and at the same time adherence to the requirement outlined in the MS 2400: 2019 Part 2 (Halal Warehousing). Figure 1 describes the process involved in the halal audit checklist prototype model development.

Figure 1: Stage of the Prototype Development Model of Halal Audit Checklist for Halal Warehouse

**System Requirement Study**

1. Review MS2400:2010 (Part 2)

2. Interview Logistics Operators

3. Observed Warehouse

**Identify Checklist Requirement**

1. Analyzed MS2400:2010 (Part 2) requirement

2. Analyzed the interview and the observation output

**Develop the Prototype Model of Halal Audit Checklist for Halal Warehousing Services**

Stage 1

Stage 2

Stage 3

In stage one, the development process started with the review on the clause and regulation stipulated in the MS2400: 2019 (Part 2). A thorough review to the MS2400:2019 (Part 2) was conducted to ensure that the prototype model will correspond to the requirement outlined in the standard. Next, an interview was conducted with the halal warehouse operators based on the respondent profile in the Table 1. It is important to collect the information from the warehouse operators as to get the real situation and expert experience on the issues, challengers, and suggestion on the warehouse daily operation. Then, upon approval from the warehouse operator an observation has been conducted as to get the real experience on the warehouse operation and activities. However, from the six warehouses that we visited only two companies allowed us to enter and observed their premises. In stage two, we managed to identify the checklist requirement based on the findings from the interview and observation conducted. Nevertheless, still the main requirement is to analyze the outlined stipulated in the MS 2400:2019 (Part 2). In this stage we need to ensure that the findings from the interview and observation conducted will fulfill the compliance of the standard. Lastly, the last stage is to develop the prototype model of the halal audit checklist based on the findings from the interview and the standard and compliance regulated in MS2400:2019 (Part 2 of Halal Warehousing).

**Result and Discussion**

Such risks cannot be dealt with on an ad-hoc basis. As with any risk, only a well-founded and properly implemented management approach can provide a measure of confidence that good performance is not an accident, and that poor performance can be identified and rectified. By properly implementing an appropriate halal toyyiban management system, any halal warehouse company, large or small, can ensure that they can effectively manage halal risks while identifying and exploiting the myriad opportunities proper halal toyyiban warehouse services that the management can bring. Such a systematic approach to halal toyyiban management is at the very heart of the ISO 2400 standard. This checklist is intended to allow managers of halal warehouse halal committee to review existing operations and management approaches against this standard to determine how well they measure up to what is considered “state-of-the-art” in effective approaches to halal toyyiban management. This checklist will help organizations to identify the gaps that exist in their management systems and the level of effort that will be required to bring their management system into conformance with the MS2400:2 standards. This checklist has been developed to improve the halal warehouse service provider's understanding of the requirements and elements of the halal toyyiban management system outlined in the MS 2400-2:2019 standard. It is designed to allow for a rapid self-assessment of an organization or the facility operation to determine how closely existing management practices and procedures correspond to the elements of the standard and compliance regulated. The criteria of the standard have been rephrased in the format of a simple questionnaire, with a three-part scoring system. In this format, even with limited background knowledge of the MS 2400-2:2019 standard, a facility or other business manager can quickly review existing operations to determine how they measure up to the standard and compliance regulated. This in turn can serve as the starting point of a “gap analysis” to identify management tools or system elements that might usefully be implemented in the organization practices and for the halal supply chain management practices. On the following worksheets are a series of questions to identify to what extent your halal management system is complete in comparison to the requirements set in the MS 2400-2:2019. To facilitate the self-assessment process, the following scoring convention will be used.

1. A score of “0” indicates that the organization has failed to address a particular requirement of the standard. As an example, the standard requires the organization to periodically evaluate compliance with its compliance obligations. A score of “0” would apply if a process had not been established.
2. A score of “1” would apply in instances where the organization has partially implemented a requirement of the standard. As an example, the organization has established and implemented processes for internal and external communication; however, the communication process does not specify “how to communicate” the communication methods) – furthermore, documented information is not maintained as evidence of its communication.
3. A score of “2” would apply if the organization can provide objective evidence that it has completely fulfilled a requirement of the standard. As an example, the standard requires top management reviews of the HMS to ensure its suitability, adequacy, and effectiveness. The organization maintains documented information evidencing the completion of the reviews that include all the requisite inputs and outputs specified in the standard as indicated in Figure 2.

|  |  |
| --- | --- |
| **General**  |   |
|  | **Description** | **Score** |   |
|   | **Our organization has not fulfilled this requirement.** | **0** |   |
|   | **Our organization has partially fulfilled this requirement.** | **1** |   |
|   | **Our organization has completely fulfilled this requirement.** | **2** |   |
| *Select the most appropriate score for each item in the checklist below, using the drop-down list (0-2). Select N/A if the requirement is not applicable.* |  |   |
| *\*\*If issues are recurring a corrective action must be opened. Double click the record to add Comment and/or Corrective Action.* |   |   |
| **No.** | **Requirement** | **Score** |   |
| **1.1** | **Management Commitment** |  |   |
| 1.1. Q1 | Does the department appoint the halal committee to control the operation in the warehousing department for halal food products? | 1 |   |
| 1.1. Q2 | Is an organizational chart in place in the department to identify the positions responsible to the compliance including descriptions of responsibilities? | 1 |   |
| 1.1. Q3 | Is the department policy for halal food handling documented and communicated to all levels of the organization? | 1 |   |
| 1.1. Q4 | Does the department frequently record and documented the process changes for verification? | 0 |   |
| 1.1. Q5 | Does the committee actively react for any changes or discrepancy that affects the operational activities for halal food handling? | 2 |   |
| 1.1. Q6 | Does the department follow all the procedure in the policy to ensure the halal and the cleanliness aspect of the warehouse operation? | 2 |   |

Figure 2: List of Halal Audit Questionnaires and Scoring

The halal audit checklist prototype model was developed with the dashboard feature. A dashboard is an information management platform that is used to track performance, and other key data points relevant to an organization, business unit, or support function. Using data visualizations, dashboards simplify complex data sets to provide top management, halal committee and operation staff with immediately of awareness on the current performance so they can act further to optimize or to take corrective actions (in case of deviation from present objectives). Furthermore, it will help the management to monitor the completeness of the corrective action need to be done after audit and assessment has been take place.

|  |  |  |
| --- | --- | --- |
| **Element** | **Total Unfulfilled** | **Status / Result** |
| Management Commitment | 4 | 58% |
| Document Control | 5 | 30% |
| Change Control | 2 | 50% |
| Staff Training | 2 | 75% |
| Sanitation and Hygiene | 2 | 75% |
| Contamination Control | 2 | 67% |
| Equipment Monitoring | 1 | 75% |

Figure 2: Dashboard Result based on Scoring

**Conclusion**

This prototype model was considered as an effective approach for the implementation of Halal Toyyiban Management System in halal warehousing services. Indeed, the practices of the halal audit checklist will help the organizations to identify the gaps that exist in their management systems and the level of effort that will be required to bring their management system into conformance with the MS 2400: 2019 (Part 2 of Halal Warehousing Services. The design of the management dashboards in the checklist will alert the top management, halal committee and operation staffs with an alarm of awareness of the current performance and consequences happened to the flow of operation. Simultaneously, the dashboard helps the management to monitor the completeness of the corrective action that needs to be done and any further recommendation on case by case solving. Henceforth, this feature in return will serve as the starting point of a “gap analysis” to identify management tools or system elements that might usefully be implemented in the organization practices and for the halal supply chain management practices.

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