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Operation Risk Mitigation On Halal Meat Supply Chain Management

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Abstract. Business owner of perishable goods such as meats has barriers to meet the demand of worldwide shipping. One of potential risk is damage resulting in decreased quality product, while the product selection criteria not only focus on quality. As the development of health issues and needs, halal meats is not only considered by the Muslim consumer but also consumer globally. In addition, they have to pay attention to the possible risk that might occur during the logistic operations so as they prevent loss if they fail to deal with the problem and risk properly. Quality Function Development proposed to identify what consumer's need as well as to analyse the condition of market in the future. The study is conducted in the context of business owner's feelings based on their obstacles. It also aims to unravel the expectations and perceptions of owners with interrelated issues such as halal meats with each affecting on the other multidirectional ways. This study has revealed new insights for policy makers, logistics service providers, and practitioners whose decisions might impact the industry.

1. Introduction

In order to facilitate highly competitive business, a company should repair a system that never work properly. Business perishable goods like halal meats also have a barrier. One of another barrier is the customer needs. Customer orders with high product varieties in small quantities are often receive by the company, with request of customized value added service and time delivery. Therefore the company can't compete with competitors. Since the decision making process is one of the most complicated processes involved in the business, the fulfillment of customer order and varieties product are challenging as it necessary to satisfy increasing customer demand, and expand the marketing reach. In addition, due to the uncertainty and rapid changes in the business environment, the performance of company should be evaluate by the possible risk that might occur during business process.

Making a wrong decision will affecting on business. Bias and subjective judgment may result inaccurate result. The lack of a resource allocation strategy may mean that no suggestions regarding the allocation of resource are provided on how to handle the order when the risk occurs. This caused improper of result and loss of key customer, satisfaction. The purpose of this research is to evaluate the production process on halal meat using Quality Function Development (QFD) to identify the customer needs comparing with competitor's product and using Failure Mode and Effect Analysis (FMEA) to determine the problem that cause defect.



2. Literature Review

Growing number of Muslim population and the acceptance of non-Muslim toward halal product offer wider platform in the halal food market. The uniqueness of the halal industry is in the impression that holy values are driving from raw material to the final product. Halal, though the definition itself is anything that permissible. Hence, stringent requirement are bounded in complying halal. The global halal food market offers huge opportunity to be captured.

In halal food supply chain, the main goal is not only to ensure the satisfaction of the customer is achieved, but also to ensure that the halal status of the food product remains intact throughout the whole process of supply chain. Lodhi (2009), Khan (2009) and Tieman (2011) believe that Halal integrity commitment is the main key factors in developing a certainty Halal food supply chain in the current complex and competitive environment. Deeply understanding about Halal food supply chain is needed based on those authors and it will protect the Halal integrity. One of process in supply chain is production, production also have an operational risk like another part of supply chain. To protect the integrity on operational production of halal meat, the company should mitigate the problem that caused halal product being non halal.

The integrity of halal meat must be protected by all means and all necessary step must be taken by all parties involved in the production to mitigate the consequences of risks and assure continuity of risk management in organization. Risk can be represented in a quantitative way by considering the relativity of risk and acceptability of risk. Dealing about concept risk management in organization scope is not effective which company only uses implicit knowledge and experience for risk management. It is happen because lack of sensitivity when the estimation of probability of possible outcomes which influenced by the risks. In some case organization of the company may tend to focus on performance than the risk. Therefore, the company should take focus on some risk that conducted in business operation process.

3. Methodology

Identify the reason of fail product is needed for guarantee to customer and also prevent losing customer key. Quality function development is a tools that used to identify the position of product with comparing competitor's product. To achieve this research goal, a comprehensive research methodology includes the research design and distribution. Primary data divided by 3 kind questionnaire and is collected through a survey from customer and owner. The research plan is shown in **figure. 1**.

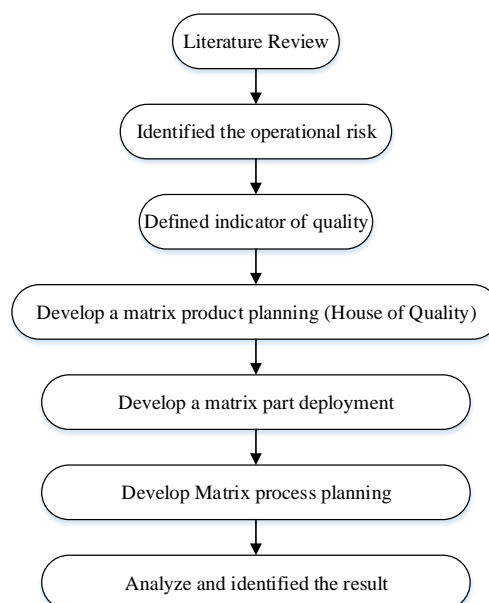


Figure 1. Research Plan

4. Case Study

Business process of perishable good like halal meats also have barrier, the meat must be assure that have same quality from production floor until arrive in the destination. Production process also have operation risk, this risk should be mitigate to ensure that the product still halal. To compete with another producer, we need to comparing the halal meat CV. Rapi Jaya and the competitors.

4.1. Discussion

We need to evaluate which one of operational processes that ineffective or in accurate. After the discussion session, we know that the product ever rejected because fail on production. So we only take focus on operational process in production. The five criteria has defined like halal, packaging, product varieties, how to order, and quality.

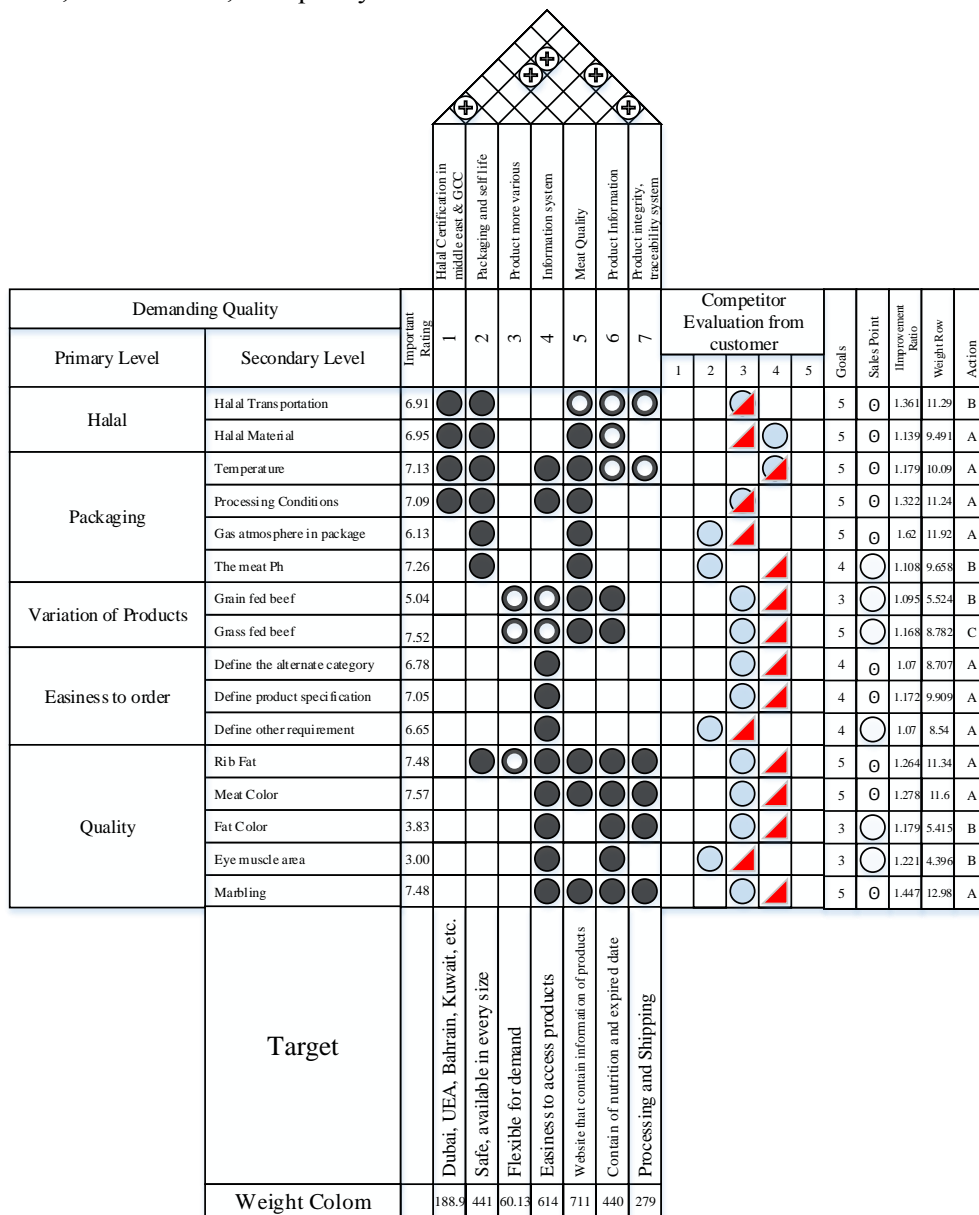


Figure 2. House of Quality

4.2. Result Analysis

Every criteria has a sub criteria that define the sub process. for example: packaging as a primary level has secondary level such as temperature, gas in atmosphere, processing condition, the meat pH Halal has secondary level like halal transportation and halal material, that so in another criteria. Every criteria, primary level and secondary level breakdown into technical requirement, target and also goal, with comparing competitor. After the subjective judgment on House of quality, we know that the company have a problem with product damage and product varieties.

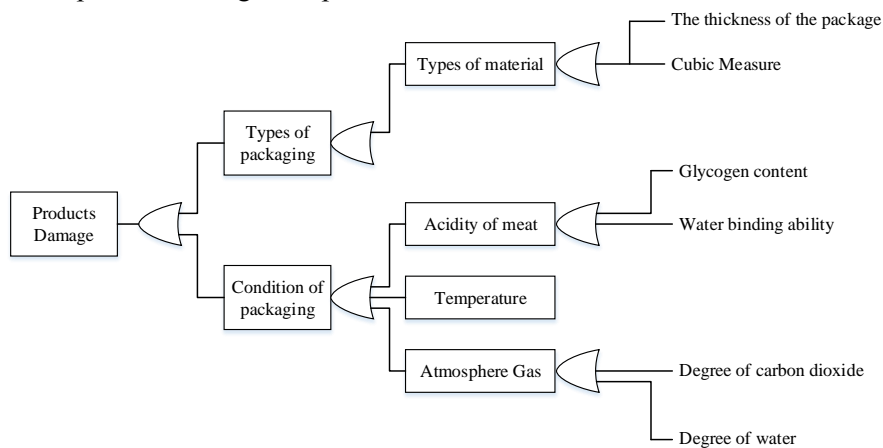


Figure 3. Risk of Damage Product

Product damage can happen with kind of packaging and packaging conditions. Wrong kind of packaging refers to the method that used like vacuum packaged (VP), layer packaged, ozone package and multi package. Packaging is very important to protect the meat’s surface. Packaging product on the company only use cold box for 100kg halal meats without remove the gas inside the box. Gas that stay still would inhibits the growth of spoilage bacteria, while still allowing the natural tenderizing process of aging to continue. The pH meats caused will spoil more quickly than meat below pH 6, as some bacteria are able to survive in this high pH environment. Temperature caused Microbial growth rates at 32°F to 33.8°F are only about half those at 41°F. A storage temperature as low as 30.2°F without freezing the meat is the best policy to maximize shelf life.

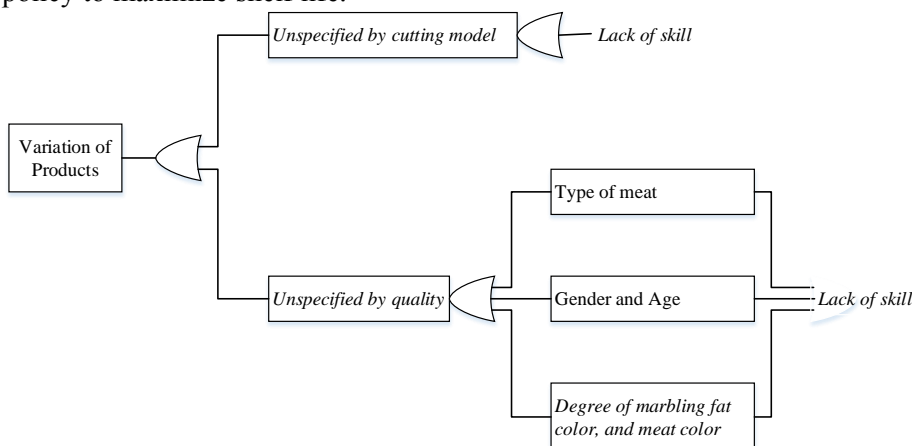


Figure 4. Risk of Variation Product

Another one biggest risk is varieties of product. The product should be easy to find, it can be define by the cutting model or specified by quality. It would help the customer to find product or alternative product. Product that define by quality such as meat color, fat color, certain age, sex, and also style of cutting. It would increasing customer satisfaction.

5. Conclusion

Halal integrity is the foundation of halal food industry. All parties in the supply chain must take responsibilities to protect the halal food product from being contaminated. One of the parties is production, to ensure the halal food still remain halal before it's travelled greater distance is minimize the damage product, that caused by wrong packaging and packaging condition. The company should change the packaging and minimize the size of packaging. The factor that caused this damage is lack of skill. The company can handle this with conducted a training for employee and work together with department of industry to evaluate the process. Employees is important to every company, it's an asset for continuity of the company.

To be able to survive in this era of business, the company need to innovate so as to overcome the saturation of the customer against product. The demand of varieties product of halal meats that's not only coming from end customer but also restaurant and hotel. This a big opportunity for company. The company should specified the product into different cutting model (tenderloin, striploin, brisket etc.) and also quality.

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