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PROPOSED FRAMEWORK FOR HALAL VALUE CHAIN ANALYSIS IN BATIK INDUSTRY

Ahmad Syafruddin[1*], Nilda Tri Putri[2], Rima Rofifah Putri[3], Ratni Prima Lita[4]
Department of Industrial Engineering, Faculty of Engineering, Universitas Andalas, Padang, Indonesia[123]
Department of Management, Faculty of Business and Economic, Universitas Andalas, Padang, Indonesia[4]
ahmadsi@eng.unand.ac.id

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**Corresponding Author*

ABSTRACT
This paper aims to apply the halal value chain to Tanah Liek Batik textiles to become halal batik products, using a framework designed to analyze the halal value chain. The method used in dealing with this problem is to apply HCCP (Halal Critical Control Point) to the company's activity value chain to become a halal value chain. The initial data used is a flow diagram of the production process of four types of Tanah Liek Batik products: Tanah Liek dyed batik, chemically dyed batik, stamped batik with soil-like dye, and chemically dyed batik. Based on the results of the identification of haram materials in each process in the activity, the Halal Control Point (HCP) is obtained. The application of HCCP to the Tanah Liek Batik value chain has 13 critical points of haram products, which come from the process, facilities, and tools and materials used during the production process. This study also produces a Halal Value Chain framework in the Textile Industry. Applying this framework in the textile industry is expected to increase the number of halal-certified textile industries.
***Keywords*:** *Halal Product, HCCP, HCP, Batik Tanah Liek, Halal Value Chain*

1. Introduction

Based on previous research that has been conducted on the halal value chain and the implementation of HCCP (Amir & TjibtoSubroto, 2019; Fajri, 2020; Hanafi, 2019; Kohilavani et al., 2015; Muflihin, 2019; Nurainun et al., 2021), we can be seen that the implementation of HCCP is generally carried out in the food and slaughterhouse industries, while in the textile industry there has been no previous research to implement HCCP. Textile companies can currently fulfill the obligation of the textile industry to be labeled halal by implementing a halal value chain in the company through the implementation of the HCCP system to identify haram elements. Therefore, the implementation of HCCP in the textile industry needs to be carried out in this study.

The textile and textile products industry is one of the labor-intensive industries that contributes significantly to the national economy. The Textile and Apparel Industry grew positively in the first quarter of 2024. Consecutively, the growth of the two subsectors reached 5.90 percent (yoy) and 2.64 percent (yoy) in that period. The positive development of the Textile, Apparel, and Footwear Industry was due to strong foreign and domestic demand. In the first quarter of 2024, foreign demand for textile, apparel, and footwear products increased in volume, namely by 7.34 percent (yoy) for textile products, 3.08 percent (yoy) for clothing, and 12.56 percent (yoy) for footwear (Ministry of Industry, 2024).

The textile industry must have halal textile certification because textiles are goods used for clothing. Valuable goods are goods worn, used, or utilized by the community, such as clothing, head coverings, and accessories, and goods used by the community, such as medical devices (Jumiono & Rahmawati, 2020). The provisions for fulfilling halal certification are regulated in Law Number 33 of 2014 concerning Halal Product Assurance and Government Regulation Number 31 of 2019, which also governs the obligation of the textile industry to have halal certification. Article Implementation of the responsibility to certify halal goods for the category of used goods, namely the category of clothing, headgear, and accessories, based on the provisions of the PMA (Minister of Religion Regulation Number 26 of 2019 Concerning Implementation of Halal Product Guarantees, 2019), will be gradually implemented on 17

October 2021 - 17 October 2026. By the end of 2020, more than 11,000 used goods products have been halal certified.

Minister of Industry Agus Gumiwang Kertasasmita revealed that the growth of the Sharia economy and halal industry is increasingly solid. This is because it is supported by several main drivers, namely the large Muslim population, increasing awareness of Islamic ethical values related to the consumption of halal and tayyib products, and the increasing number of national strategies and programs dedicated to the development of halal products and services (Catriana & Ika, 2023). According to the State of The Global Islamic Report (2023) 2022, around 2 billion Muslims will be spending the equivalent of USD 2.29 trillion in the halal industry sector. This expenditure grew 8.9% from the previous year, with Islamic financial assets rising 7.8% to USD 3.6 trillion from USD 3.4 trillion the last year. In this report, Muslim spending is estimated to reach US$2.8 trillion by 2025 with a 4-year Cumulative Annual Growth Rate (CAGR) of 7.5%. (Gateway, 2024).

The need for halal certification in textiles is also a step for companies to face industrial competition. Textile companies with halal certification are attractive to consumers, especially Muslims. Indonesia, which has a predominantly Muslim population, is ranked third in consuming Muslim clothing after Turkey and the United Arab Emirates (Susilawati et al., 2021). Indonesia, which is ranked third in consuming Muslim clothing, shows that Indonesian people have pretty high consumption behavior towards Muslim clothing and are more likely to buy clothes that are by Islamic law. The high value of this consumption behavior proves that the textile industry needs to develop its business to face competition, one of which is halal textile certification, to increase public trust.

In addition to increasing public trust in the textile products used, Halal textile products can also increase the export value of Indonesian products abroad, especially in the textile sector. Textile products can be exported to countries requiring products entering or leaving their country for halal certification. Kuwait and Qatar require all products entering their country to have halal certification. Egypt, Bahrain, Jordan, Pakistan, and Iran have even more processed products, and those entering these countries must have halal certification (Fathoni & Syahputri, 2020). The Republic of Indonesia requires that all products entering, circulating, and being in the territory of Indonesia must have halal certification by the provisions of Article 4 of Law Number 33 of 2014, one of which is textile products as goods that must have halal certification. Batik producers, as one of the textile products, must respond to this halal certification provision immediately (Government Regulation Number 31 of 2019 Concerning Implementing Regulations of Law Number 33 of 2014, 2019).

Article 2, paragraph 1 of Government Regulation Number 31 of 2019 states that Products entering, circulating, and trading in Indonesia's territory must be halal certified. Article 3 states that the Halal Certificate, as referred to in Article 2 paragraph (1), is given to Products that come from halal materials and meet PPH. PPH is the Halal Product Process, explained in Article 1, paragraph 4, is a series of activities to ensure the halalness of Products, including the provision of materials, processing, storage, packaging, distribution, sales, and presentation of products.

The application of a halal value chain is carried out to make batik products as halal batik products; in this study, the application of a halal value chain was carried out on Batik Tanah Liek Hj Wirda Hanim through the identification of potentially haram substances in each value chain activity, and control measures were provided for the potential haram substances found. Batik Tanah Liek Hj Wirda Hanim has a more active sales website compared to other Tanah Liek batik in Padang City so that traders may purchase Batik Tanah Liek Hj Wirda Hanim from Malaysia or other Islamic countries, where the country of origin of the buyer requires products that enter and circulate from their country must have halal certification. Batik Tanah Liek Hj Wirda Hanim sells online through websites and social media and in galleries, so traders from other Islamic countries can buy batik products through online orders. In addition, halal products in Batik Tanah Liek Hj Wirda Hanim can also be used as halal souvenirs brought by tourists visiting West Sumatra to their home areas, considering that West Sumatra will be made a halal destination province. Dzikrulloh & Koib (2021) define the halal value chain as a series of activities that can create added value in every process consisting of production, distribution, and

marketing of goods or services to consumers, which fulfill aspects of compliance with fundamental values and principles of Sharia.

This research aims to apply the halal value chain to the Batik Tanah Liek textile industry by Hj Wirda Hanim so that it can become a halal batik product. The application of the halal value chain in this study uses the Halal Critical Control Point (HCCP) method to identify haram elements in the main activities and provide suggestions for improvement. This study also produces a framework that other textile industries can use to analyze the halal value chain.

2. Literature Review

Halal and haram have been regulated in the Quran, namely in Al-Baqarah verse 168, Al-Maidah verse 88, Al-Anfal verse 69, Al-Nahl verse 114, Al-Baqarah verse 187, Al-Baqarah verse 275, and An-Nisa verse 19 (Ridwan, 2019). Halal products are products that meet (fulfill) the halalness requirements, according to Allah SWT's word in the Al-Quran, Surah Al-Baqarah verse 173 above (Juniarti & Nazwirman, 2019). Article 2, paragraph 1 of Government Regulation Number 31 of 2019 states that Products that enter, circulate, and are traded in the territory of Indonesia must be halal certified. Article 3 states that halal certificates, as referred to in Article 2 paragraph (1), are given to Products that come from halal materials and meet PPH. PPH is the Halal Product Process, explained in Article 1, paragraph 4, is a series of activities to ensure the halalness of products, including the provision of materials, processing, storage, packaging, distribution, sales, and presentation of products.

The halal industry is a business that aims to produce goods or services by Islamic law (by the provisions of halal and haram products) (Sukoso et al., 2020). Regarding language, the halal industry also means an activity that produces goods using equipment and facilities permitted by Islamic law (Sukoso et al., 2020). Law Number 33 of 2014 concerning Halal Product Guarantee is a law regulating the halal industry's implementation. This halal industry can increase economic growth by increasing the value of foreign exchange reserves with potential (Fathoni & Syahputri, 2020). Increasing the export value of the halal industry, increasing the potential for halal tourism, and increasing the role of the Islamic financial industry are ways to increase the value of foreign exchange reserves through the halal industry (Fathoni & Syahputri, 2020). Indonesia has great potential for the halal industry, such as in the halal food sector, Islamic finance sector, halal tourism sector, and Muslim fashion sector, which have great potential because most Indonesian people are Muslim (Fathoni & Syahputri, 2020).

Based on the research results of Amir & TjibtoSubroto (2019), the creation of a halal value chain starts from the activities of the production, distribution, and consumption processes that are not interrupted but are a complete series and become an Islamic economic and financial cycle. Nurainun et al. (2021) showed that a study had been conducted on four topics that needed to be related to the leather industry, namely: 1. Internal motivation and obstacles in implementing, 2. External factors that influence decision-making regarding the implementation of had, 3. The influence of had on organizational performance, 4. Traceability system in had. Muflihin (2019) stated that halal fashion has four indicators: halal suppliers, halal manufacturing, halal warehouses, halal distribution, and halal transportation. Hanafi (2019) stated that the difficulty in meeting the criteria for halal fashion is due to limited raw materials, SOPs, and halal warehousing. Fajri (2020) said that Halal-HACCP integrates food safety and halal assurance systems; the opportunity to implement this system is quite significant in other industries due to the increasing halal industry development. Kohilavani et al. (2015) implemented HCCP using the HACCP concept in the poultry slaughtering and processing industry. Kamarun et al. (2018) showed that there are challenges in the future regarding the halalness of silk-based products due to the need for more knowledge and information regarding the halalness of fabrics and the authenticity of silk.

Textiles are materials used to make clothes and are used as clothing. Generally, the indicators of a textile are halal, the same as those of halal clothing. Muflihin (2019) said that the indicators of halal fashion are as follows: (1) Halal Supplier, (2) Halal Warehouse, (3) Halal Production Process, (4) Halal Distribution, and (5) Halal Transportation. The challenge in certifying consumer goods, including textiles, is that the criteria used are not very detailed, so application evaluation decisions may be inconsistent (Jumiono & Rahmawati).

Batik textiles are a series of activities that start with the cloth using batik wax (malam) and continue with coloring (Mila in Oktora & Adrianti, (2019). Hamzuri in Oktora & Adrianti (2019) said that batik is a painting on plain cloth drawn with a tool called canting. Batik textiles in Indonesia have various types. In general, each region has its characteristic batik cloth. One is the West Sumatra region, which has a typical batik cloth known as batik tanah liek. Batik tanah liek is a batik whose coloring process uses liek soil (clay) by soaking it in the liek soil solution (Putri & Herwandi, 2020). Batik tanah liek can also use colors from wood, fruits, flowers, and leaves (Putri & Herwandi, 2020). This type of batik applies wax to a white cloth and uses clay as a dye for the batik (Oktora & Adrianti, 2019).

Porter, 1985 in Julianto & Darwanto (2016), said that the series of activities in the value chain are grouped into two activities, namely main activities and supporting activities. The main activities include inbound logistics, operations, outbound logistics, marketing, and sales (Julianto & Darwanto, 2016). Supporting activities include procurement, technology development, human resource management, and firm infrastructure (Julianto & Darwanto, 2016). The application of this halal value chain is carried out in all company activities based on Porter's theory, starting from the raw material stage to the marketing and sales stage (final stage) while still paying attention to activities that support the company, such as technology development, human resource management, and company infrastructure. Identification of haram substances in the activities carried out by the company needs to be carried out in the application of this halal value chain, using the Halal Critical Control Point (HCCP). This HCCP is used to identify haram substances in the activities carried out by the company according to the division of activities according to Porter's theory, especially in the main activities.

Halal Critical Control Point (HCCP) identifies haram substances using five basic requirements and seven implementation principles, and it establishes haram critical control points (Kohilavani et al., 2015). Implementing HCCP can prevent or eliminate cross-contamination of haram substances in a product (Fajri, 2020). The requirements for implementing the HCCP system consist of 5 basic requirements, namely: (1) Formation of an HCCP Team, (2) Preparation of Halal Product Descriptions, (3) Identification of the Purpose of Using Halal Products, (4) Preparation of Halal Production Process Flow Diagrams, and (5) Verification of Halal Production Process Flow Diagrams. The principles of the HCCP system consist of 7 main principles, namely: (1) Identification and Analysis of Potential Haram Materials, (2) Determination of Halal Control Points, (3) Determination of Critical Limits of Haram, (4) Determination of Control Steps, (5) Determination of Corrective Actions, (6) Determination of Verification and Validation Procedures, and (7) Determination of Documentation.

3. Research Methods

Halal certification in Indonesia involves three parties, namely BPJPH (Halal Product Assurance Organizing Agency), LPPOM MUI (Food, Drug and Cosmetics Assessment Institute of the Indonesian Ulema Council) as a halal inspection institution (LPH), and MUI (Indonesian Ulema Council). BPJPH implements halal product assurance. LPPOM MUI carries out document adequacy checks, audit scheduling, audit implementation, auditor meeting implementation, issuance of audit memorandums, and submission of audit result minutes at the MUI Fatwa Commission meeting (LPPOM MUI, 2023).

Data collection in this study was conducted through structured and in-depth interviews to obtain information on the activities carried out by the company, which consist of primary activities and supporting activities. We observed the potential for haram elements in the company's production activities to implement the Halal Critical Control Point (HCCP) to become a halal value chain. The data collected consisted of primary data and secondary data. Primary data is in the form of interview results and observations in data processing, and secondary data is in the form of data obtained from journals, articles, and the Internet.

The main activities of Batik Tanah Liek Hj Wirda Hanim consist of (1) internal logistics activities (inbound logistics), (2) operational activities, (3) external logistics activities (outbound logistics), (4) product marketing and sales activities, and (5) provision of services to consumers. Internal logistics activities start from purchasing raw materials, distributing raw materials to

producers, and storing purchased raw materials in the warehouse. Operational activities start from processing and processing input (raw materials) to produce output as batik products. This activity also includes maintaining the quality of the finished product (batik product). External logistics activities are carried out by storing products directly at the point of sale (main gallery) and branch galleries. This is because Batik Tanah Liek Hj Wirda Hanim does not have a warehouse for storing finished goods; instead, it stores finished goods directly at the point of sale. Marketing and sales activities are carried out at the main gallery (production site) on Jalan Sawahan Dalam Padang City and the branch gallery on Simpang Haru Padang City, as well as online shopping media such as Shopee and the website. Service activities are carried out for consumers when they come to the point of sale. Services in the form of knowledge on how to care for batik properly are also provided to consumers in the form of care instructions included in the product packaging. Consumers are also allowed to hold the batik cloth before making a purchase to assure consumers of the quality of the product. Services in the form of producing motifs according to consumer demand are also provided. Namely, consumers are allowed to request patterns and colors of motifs according to their wishes by ordering in advance, but the dyes used must be from the producer, not from the consumer.

Supporting activities help the company to carry out its primary activities. Supporting activities of Batik Tanah Liek Hj Wirda Hanim consist of (1) procurement, (2) technology development, (3) human resources, and (4) company infrastructure. Equipment and raw materials procured at Batik Tanah Liek Hj Wirda Hanim are carried out by the company only occasionally but flexibly; if the equipment is damaged or the raw materials run out, then a repurchase will be carried out. Technology development includes product packaging design, website design, and payment technology development. Employee recruitment is not done through a test but by recruiting employees already skilled in making batik. Employee recruitment is carried out directly by the owner, and no special employee training exists. Company management is run directly by the owner without an organizational structure, so the owner handles all problems related to human resources and company finances.

Based on the analysis of the main activities and supporting activities, we found that the potential for finding haram elements is in the activities of purchasing raw materials, distributing raw materials from suppliers to producers, storing raw materials in the raw material warehouse, preparing equipment, the production process, storing finished products in the main gallery and branch galleries, and distributing finished products to consumers. Therefore, we further identified the potential for haram elements in activities that have the potential for finding haram elements. We identified this by implementing the Halal Critical Control Point (HCCP) at Batik Tanah Liek Hj Wirda Hanim.

Implementing HCCP can prevent or eliminate cross-contamination of haram substances in a product (Fajri, 2020). The basic requirements for the implementation of HCCP carried out in this study consist of (1) the formation of an HCCP team, (2) a description of the halal product, (3) the purpose of using the halal product, (4) the creation of a halal production process flow diagram, and (5) verification of the halal production process flow diagram. The HCCP team comprises a chairperson, production, packaging, quality control, and halal personnel. The preparation of the product description includes the name of the product, materials used to make the product, halal-certified materials, production methods, types of materials used for primary packaging, types of materials used for secondary packaging, storage conditions, distribution methods, target consumers, and methods used before the product is used. This Batik Tanah Liek Hj Wirda Hanim product is intended for everyone and all groups of various ages, especially Muslim consumer groups. The production process flow diagram provides information on all materials used during the production process (input) and the output from each stage (output), such as waste.

The seven main principles of HCCP implementation consist of (1) Identification and Analysis of Potential Haram Materials, (2) Determination of Halal Control Points, (3) Determination of Critical Limits of Haram, (4) Determination of Control Steps, (5) Determination of Corrective Actions, (6) Determination of Verification and Validation Procedures, and (7) Determination of Documentation. Based on the identification and analysis of haram materials, we obtained 13 halal control points (HCPs) from all potential haram

materials based on the Halal Assurance System (SJH) criteria. The critical limits of haram are determined to determine how much of a limit (tolerance) an HCP can be said to be haram to obtain halal from a product. In the application of halal critical control points (HCCP), the critical limit of the haram of a product cannot be measured; the critical limit of the haram of a product is only stated as haram or halal; this is because zero tolerance is applied to all halal control points (HCPs). Suppose a halal control point has been found in a process, facility, or tool and material. In that case, we can ascertain that the process, facility, or tool and material are the critical control points for the halal product, known as HCCP. Monitoring is carried out at 13 halal control points (HCP) that have been determined to ensure that the critical points of haram obtained through the determined HCP are still given appropriate action based on the criteria of the Halal Assurance System (SJH) and halal textile indicators. Corrective actions consist of direct correction and corrective action. Direct correction is a step that is taken directly at the time a deviation is found. At the same time, corrective action is an improvement for the future so that no deviations are seen again during monitoring. Verification is carried out on documents/records designed for each HCP, while validation is carried out on documents/records that have been created. The documentation/records designed consist of raw material receipt forms, facility cleanliness forms, critical haram points records, halal status inspection forms for tools, work instructions, and finished product delivery forms. These documentation/records are designed to control critical haram points so that appropriate action is always taken.

4. Results and Discussion

This study did not specifically test the elements identified as containing haram elements. Therefore, we can not produce actual data in the form of numbers. We only identified the stages that may be contaminated with haram materials and preventive mitigation. The textile industry, in general, can use the framework produced in this study. A description of each step used is presented below.

4.1 Value Chain Mapping

The purpose of creating this value chain mapping is to identify the actors involved in the value chain ofs the five primary activities (as explained in the method) at Batik Tanah Liek Hj Wirda Hanim in sequence and to identify the stages in each process in the main activities, making it easier to identify haram elements in each primary activity. A value chain map equipped with the possibility of finding potential haram elements illustrates the possibility of finding haram elements at a stage of the process in the main activities, making it easier to identify potential haram elements and then find the critical point of haram in an activity. Figure 1 shows a value chain map of the possibility of finding potential haram elements.

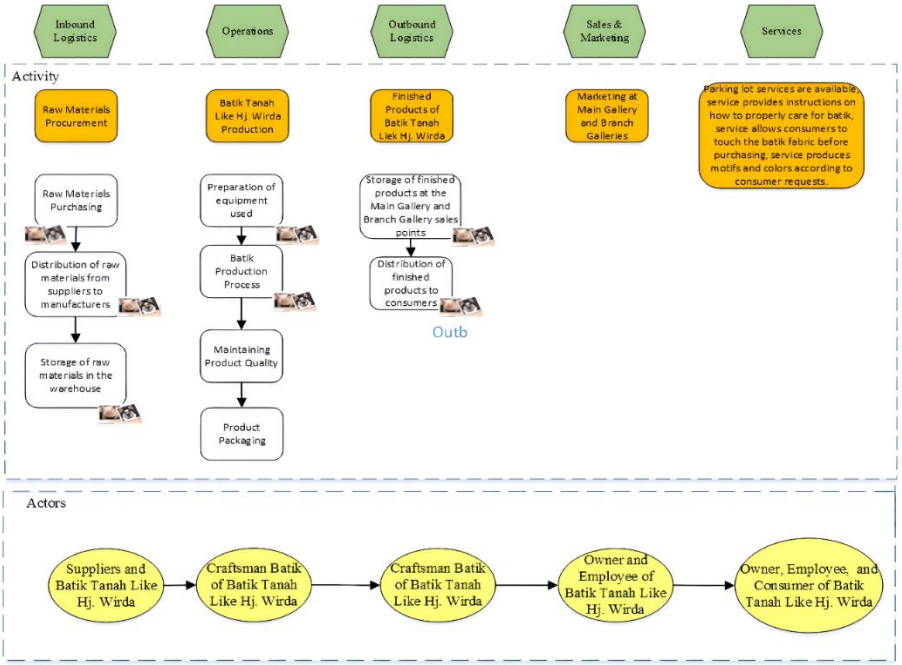

Fig. 1. Value Chain Map of Potential Detected Haram Elements

Based on Figure 1, it is possible to find haram and impure substances in the activities of purchasing raw materials, distributing raw materials, storing raw materials in the raw material warehouse, preparing the equipment used, the production process of Batik Tanah Liek Hj Wirda Hanim, storing finished products at the point of sale, and distributing finished products to consumers.

4.2 Formation of The HACCP Team

The first requirement for applying for HCCP to Batik Tanah Liek Hj Wirda Hanim is establishing an HCCP team. HCCP team leader Batik Tanah Liek Hj Wirda Hanim is Mrs. Hj Wirda Hanim. Mrs. Hj Wirda Hanim is the founder and principal owner of Batik Tanah Liek Hj Wirda Hanim's business. The production, packaging, and quality control personnel of HCCP Batik Tanah Liek Hj Wirda Hanim's team is Mrs. Rahmi. The halal section personnel of HCCP Batik Tanah Liek Hj Wirda Hanim is Mrs. Maida Roza.

4.3 Preparation of Halal Product Description

Halal product descriptions are prepared to provide consumers with information on halal products. Halal product information consists of product name, the material used to make the product, halal-certified material, production method, type of material used for primary packaging, type of material used for secondary packaging, storage conditions, distribution method, target consumer, and method performed before the product is used.

4.4 Identification of The Purpose of Using Halal Products

The Batik Tanah Liek Hj Wirda Hanim product is intended for all people of all ages. Children and adults can use Batik Tanah Liek Hj Wirda Hanim products. This product is also for Muslim consumer groups of various ages who need the halal status of a product they use.

4.5 Preparation of Flow Diagram of The Halal Production Process

The preparation of the flow diagram of the halal production process aims to determine the stages of the production process of each type of product, starting from receiving raw materials to packaging the finished product. The flow diagram is made for the four types of products. The production process flow diagram provides information in the form of all materials used during the production process (input) and the output of each stage, such as waste.

4.6 Verify Halal Production Precess Flow Diagram

The flow diagram verification aims to determine whether the diagram designed follows the actual situation in the field and whether all the Batik Tanah production processes, Liek Hj Wirda Hanim, are already on the flow diagram. The flow diagram verification was done on the four Batik Tanah Liek Hj Wirda Hanim products. The verification results show that the production process's flow diagram is correct and follows the production process of the four types of Batik Tanah Liek Hj Wirda Hanim products. Figure 2 shows the process flow diagram for one of the products, namely clay dye batik.

4.6 Identification and Analysis of Potential Haram Materials

Identification and analysis of potential haram materials aim to determine the potential for haram elements in the materials used, facilities, tools, and production processes and to find out the type of haram material at that potential, the cause, and the source of haram materials. We found the potential haram materials and analyzed them using decision trees to find out if the potential for haram material belonged to a halal control point known as HCP or non-HCP. The decision tree used is designed for textile products adapted from the decision tree of the determination of HCP (Fajri, 2020). The decision tree that has been created can be seen in **Figure 3.**

4.7 Determination of Halal Control Point

Halal Control Point (HCP) is conducted to determine whether the potential for haram materials found, if not correctly defined, can cause textiles to become non-halal. The determination of HCP is based on decisions obtained using a decision tree. A material that may be haram can be said to be a halal control point or not based on the Halal Assurance System (HAS) criteria and the indicators of the halalness of textiles. If some criteria and indicators are not met to produce halal textiles, then the potential for the haram material to become a halal control point (halal that needs to be controlled). Results Based on an analysis of the potential for haram substances, there were 16 halal control points (HCP), with 5 HCPs consisting of HCP 2.1, HCP 2.2, HCP 2.3, HCP 2.4, and HCP 2.5 are HCPs that are not at risk of cross-contamination by substances, haram, and najis, but still have to pay attention to its halal status.

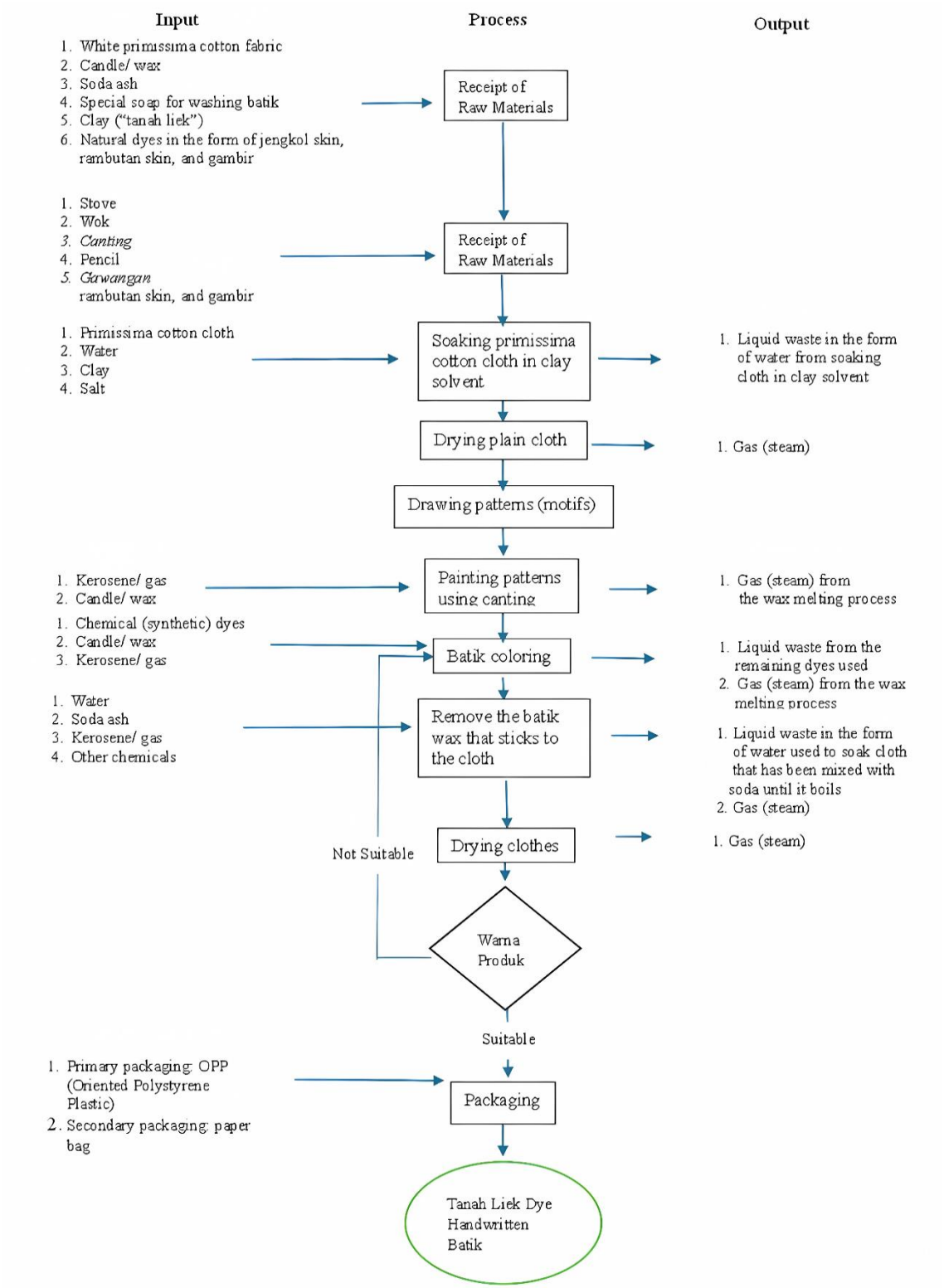

Fig. 2. The Process Flow Diagram For Clay Dye Batik

HCP 2.1, which is white cotton cloth at any time, has the potential to be at risk of contamination by najis and haram materials even though it is tiny, namely when the cotton cloth is placed in an open packaging condition in the raw storage warehouse. Compared to other HCP 2, HCP 2.1 is an HCP that needs to be used as a halal control point because it is significant for causing non-halal textiles. Therefore, it can be said that there are as many as 13 HCPs (halal control points) that are very risky, consisting of 12 HCPs that are at risk of being contaminated by najis and haram materials, and 1 HCP which at any time can be contaminated with najis and haram materials, namely primissima cotton cloth.

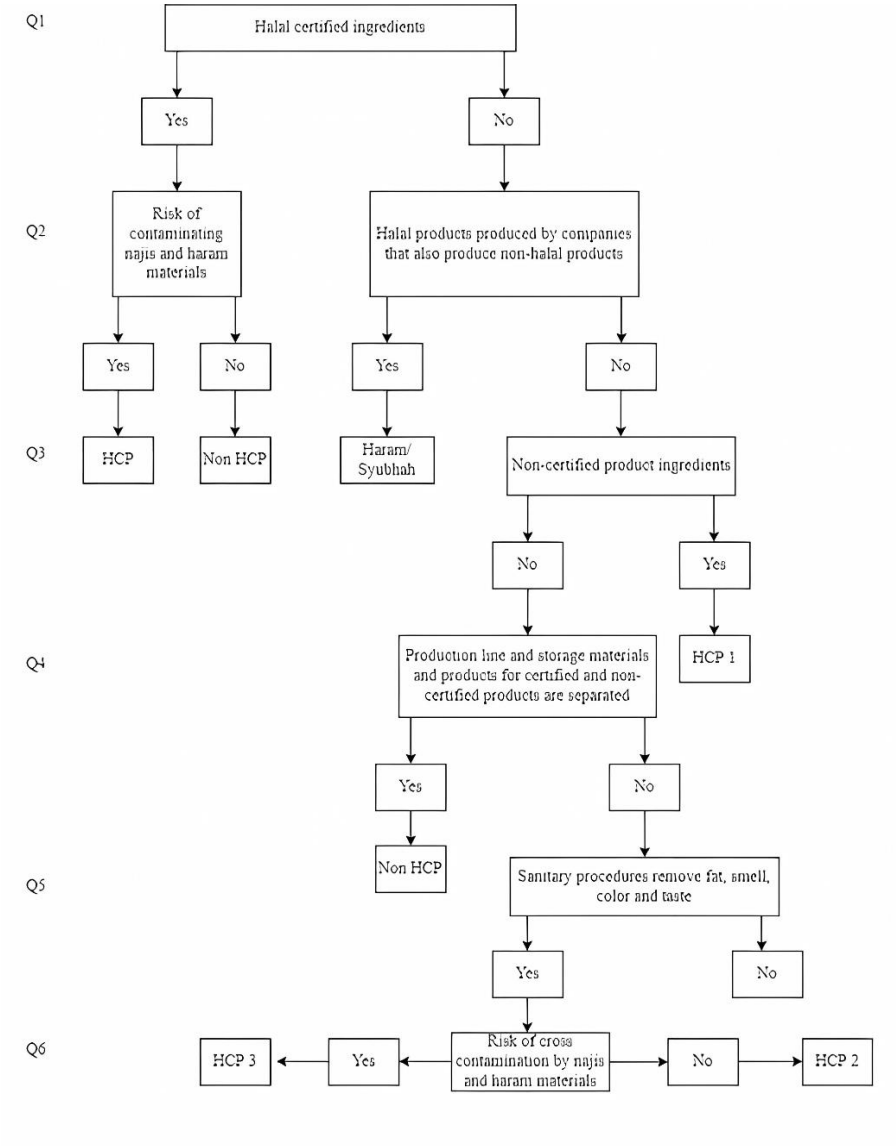

Fig. 3. HCP Determination Decision Tree

4.8 Determination of The Critical Limit of Haram

The application of HCCP cannot measure the critical haram limit of a product. The essential limit of product haram is only stated as haram or halal because zero tolerance is applied to all halal control points (HCP). Suppose a halal control point has been found in a process, facility, or tool and material. In that case, it can be ascertained that the process, facility, or tool and material is a critical control point for product halalness, known as HCCP. The essential point of product prohibition can be seen in **Table 1.**

4.9 Determination of Monitoring Procedure

Monitoring is carried out at 13 designated halal control points (HCP) to ensure that the haram critical points obtained through the established HCP are still given appropriate action. Monitoring measures aim to prevent najis and haram materials from contaminating Batik Tanah Liek Hj Wirda Hanim products.

4.10 Determination of Corrective Action

Corrective action is determined based on the results of the monitoring procedure. This action is taken if there is a deviation during monitoring. Correction consists of direct correction and corrective action. Direct correction is a step that is carried out directly at the same time that

deviations are found, while corrective action is a further improvement so that no deviations are found during monitoring.

Table 1 - The Critical Point of Haram

No	Activity	Process/Facilities/Tools and Materials	Types of Products	The Critical Point of Haram
1	Internal Logistics	White Primissima Cotton Fabric	All kinds of products	Cotton fabrics that do not have halal certification
2	Internal Logistics	Night Candle	All kinds of products	Night candles that do not have halal certification
3	Internal Logistics	Batik Washing Soap	All kinds of products	Special soap for washing batik that doesn't have halal certification
4	Internal Logistics	Sodium Carbonate	All kinds of products	Soda ash that doesn't have halal certification
5	Internal Logistics	Chemical Dyes (Synthetic)	Written batik and chemical dye stamped batik	Chemical dyes (synthetic) that do not have halal certification
6	Internal Logistics	Warehouse Facilities for Storage of Raw Materials	All kinds of products	Placement of raw materials and finished products as well as raw materials that have been confirmed to be halal, such as natural dyes from plants, are not separated from raw materials that do not have a clear halal status
7	Operation	The Skillet Used	All kinds of products	A skillet that doesn't have halal certification
8	Operation	Brush Used	Chemically dyed hand-drawn batik, and chemically dyed stamped batik	Brushes that don't have halal certification
9	Operation	Fabric Drying Process	Hand-drawn batik and stamped batik with natural dyes	The process of drying cloth in places that are often passed
10	Operation	Pattern Drawing Process	Hand-drawn batik with natural dyes and chemical dyes	The process of drawing patterns is carried out by some employees in their respective homes, whose hygiene and cleanliness have not been maintained
11	Operation	Pattern Painting Process	Hand-drawn batik with natural dyes and chemical dyes	The process of painting patterns for some employees is not carried out at the production site, but in their respective homes or other places

4.10 Establishment of Verification and Validation Procedure

Verification procedures are established to ensure that the HCCP system runs correctly and according to the procedure. Verification is carried out on documents/records designed for each HCP. After verifying the documents/records, then validation is carried out to ensure the validity of the documents/records that have been made.

4.11 Documentation Determination

Documentation is established to control the implementation of HCCP implementation. Verification and validation are carried out based on the documentation/records that have been designed. These designed documentation/ records are used to implement HCCP in the company. The designed documentation/records consist of a raw material receipt form, a facility cleaning form, a haram critical point note, a tool halal status inspection form, work instructions, and a finished product delivery form.

Implementation of HCCP in companies requires a verification plan. This verification is carried out to ensure whether the HCCP applied by the company is correct and according to procedures. Verification is carried out on implementation and documentation, production process flow diagrams, raw materials, and HCCP. The verification of the HCCP implementation plan on Batik Tanah Liek Hj Wirda Hanim, a specific case study, can be seen in **Table 2.** This case study serves as an example of how HCCP can be effectively implemented in a company.

Table 2 - Verification Plan

No	Activity (What)	Department (Where)	Purpose (Why)	Method (How)	Frequency (When)	Responsibility (Who)	Documents/ Notes/Records
1	Verification of HCCP implementation	Raw material warehous, productio, delivery	Ensure HCCP documentation is always on updates	Assessment	Every receipt of raw material, every new equipment	Employees receiving raw materials, halal personnel	Audit schedule
2	Verify process flow chart	Production	Ensure that the process flow chart is always updated	Checking production activities according to the process flow chart	Every time there is a change in the stages of the process	Production employees	Process flow chart, HCCP documentation
3	Raw material verification	Production, receiving of raw materials	Ensure that the raw materials used are halal	Checking halal certification of raw materials and registered with LPPOM	Each receipt of raw materials	Halal section personnel	HCCP documentation
4	HCCP Verification	Production	Ensuring proper HCCP implementation and monitoring	HCCP report checking	1 time a week	Responsible for HCCP plan	HCCP documentation (HCCP plan)

4.12 Framework Halal *Value Chain* pada Industri Tekstil

Based on the methods and theories used in this study, our research produces a framework used to analyze the halal value chain. Other textile industries can also use this framework to analyze the halal value chain to become halal textile products. **Figure 4** depicts the proposed framework for conducting Halal Value Chain Analysis for the Textile Industry.

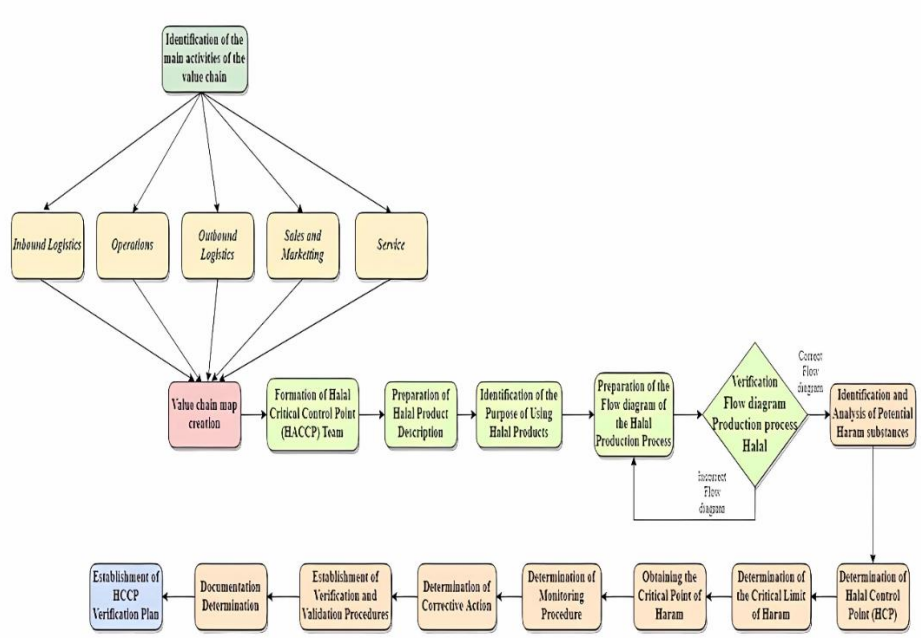

Fig. 4 Halal Value Chain Framework in the Textile Industry

The framework above starts by identifying the main activities in the value chain and then combines it with five basic requirements and seven main principles of HCCP implementation (Kohilavani et al., 2015). In each activity, identification is carried out on the possibility of haram elements so that mitigation can be carried out to eliminate these haram elements. The final result of the framework is halal textile products. Frameworks for other industries besides textiles are presented by Lestari et al., (2023), (Ngah et al., 2017), (Khan et al., 2021), and (Vanany et al., 2021). Research on halal fashion/textiles has not provided a framework like the one produced by this study (Hanafi, 2019; Ikhsanti et al., 2023; Kadir, 2023; Listyadewi, 2023; Muflihin, 2019).

5. Conclusion

This study concludes that 13 critical points of haram products were obtained by analyzing the halal value chain. The critical point of haram is in the process of purchasing raw materials from suppliers who do not use raw materials that have halal certification, warehouse facilities for storing raw materials, used frying pan equipment, brush equipment used, cloth drying process, pattern drawing process, pattern drawing process, the production process and checking of finished products at the point of sale, and the distribution process of finished products to consumers. The author also proposes a framework for conducting Halal Value Chain analysis for the Textile Industry. The advice given to Batik Tanah Liek Hj Wirda Hanim is to implement the halal value chain regularly and continuously by implementing HCCP forms, records, and plans designed for permanent production activities

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