



Journal of Advanced Research in Business and Management Studies

Journal homepage:
<https://karyailham.com.my/index.php/arbms/index>
ISSN: 2462-1935



Halal Logistics Business Model Canvas (HLBMC) in Small and Medium Enterprises (SMEs) - Case Study of UCS Logistics Sdn. Bhd

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ARTICLE INF

Article history:

Received 8 July 2025

Received in revised form 12 August 2025

Accepted 20 August 2025

Available online 7 September 2025

Keywords:

Halal; sustainable halal logistics; business model canvas; Small and Medium Enterprise; halal awareness, halal assurance; sustainable business model

ABSTRACT

The purpose of this paper is to redesign the Halal logistics business model canvas from the conventional logistic business model canvas while implementing several remarkable sustainable points. This research used a case study method on small and medium enterprises (SMEs). The empirical study was based on focus group discussion, document analysis, and narrative review. The findings reveal the sustainable HLBMC to ensure it meets the organization's needs while confirming to Halal enforcement bodies in Malaysia with focusses on delivering values (awareness, trust, Halal certification) instead of being profit-driven as well as promoting sustainability in the Halal logistics sector. The study expands the research on BMC in the context of Halal logistics for SMEs and serves as the preliminary guide and provides further insight for future research. This research could benefit other Halal logistics businesses in defining their own HLBMC.

1. Introduction

1.1 Research Background

Even though Halal is the most prominent term particularly for Muslims worldwide, it is stated that consumers' awareness of local or international Halal services is still low [1]. Lack of information on most Halal services has been identified as the primary contributor to this situation [2]. Although many are unaware of Halal products and services, every year has witnessed an increase in demand

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for them. Nevertheless, as for Halal cosmetics aspect, it is stated that the consumers are aware of the information about the products and their rights [3].

Therefore, the service providers must consider how to facilitate Halal services needs by innovating their business operations. The company may need to improvise its business operation to provide necessary adherence for Halal services. Halal products vary, starting from everyday foods to health and pharmaceutical aspects. Meanwhile, Halal services may be related to logistics and transportation, warehousing, and supply chain contrast to conventional logistics, Halal logistics has stern regulations that are needed to stick to as to avoid contamination [4].

Halal logistics is one of the wide notions and past research has only addressed certain matters such as how the business is supposed to work and its influence on the products or services itself. There is least attention given to the representation of Halal logistics elements and the relationship between those elements itself. Value creation and capture in the networks of Halal food logistical operations were described by Kwag and Ko [4]. Zailani *et al.*, [5] analysed the existing and future challenges of Halal logistics practices and described their main characteristics. Kamaruddin *et al.*, [6] highlighted consumers' behavioural aspects and their influence on Halal logistics services. Past research on Halal logistics practices is fragmented, and there is minimal research in the literature, especially in terms of concept from the business model canvas (BMC) point of view. There is no Halal business model canvas that emphasis the elements of sustainability.

The aim of the study is to bridge the gap using a method based on BMC by integrating the aspects of Halal logistics. The overview of the study is illustrated in Figure 1. The research objective is to develop a HLBMC-related conceptual framework and devise a viable tool that can be used in research and in the practice of Halal logistics. The framework represents how SME practitioners employ the business logic of Halal logistical operations. It elaborates their value for separate levels of stakeholders by mixing BMC elements with components of Halal logistics and sustainable elements. The framework was the basis for a viable tool, which could be utilised by academics when discussing Halal logistical practices. It should also revitalise innovative applications on the part of Halal logistics companies, who could undertake initiatives related to their business models. Using the tool, researchers would be able to determine the major parameters that will socially, economically, and environmentally influence Halal logistical operations in the future. Furthermore, the tool could be altered based on the entrepreneurs' requirements, as their aims are often to identify opportunities for more flexible services within the Halal industry through which they can reform their existing business models [7]. In presenting and discussing the HLBMC and the vital aspects that comprise this canvas, the researcher relied on analysing one case study and an in-depth focus group discussion. Analysing the aspects of the HLBMC was intended to form guidelines for Halal entrepreneur owners of SMEs and those in different fields wishing to examine what HLBMC could potentially offer them.

The current study addresses the need for innovative approaches to future directions regarding the use of the BMC [8]. This work contributes to a better understanding of business opportunities for Halal Logistics. This study makes a parallel contribution to that of Osterwalder *et al.*, [9] in which the requirement was outlined for frameworks and visualisation tools related to business models that would facilitate academics, business owners, and organisations in their studies of and proposals for novel models for business.

This section describes the study's organisation. Subsection 1.1 provides insights on BMC concepts, SMEs, global Halal industry, and Malaysia Halal industry. Section 2 explains the research concept and methodology used in this research which is focus group discussion and case study. Section 3 highlights the findings and discussion on HLBMC. Lastly, the conclusions of the study and future research directions are outlined in Section 4.

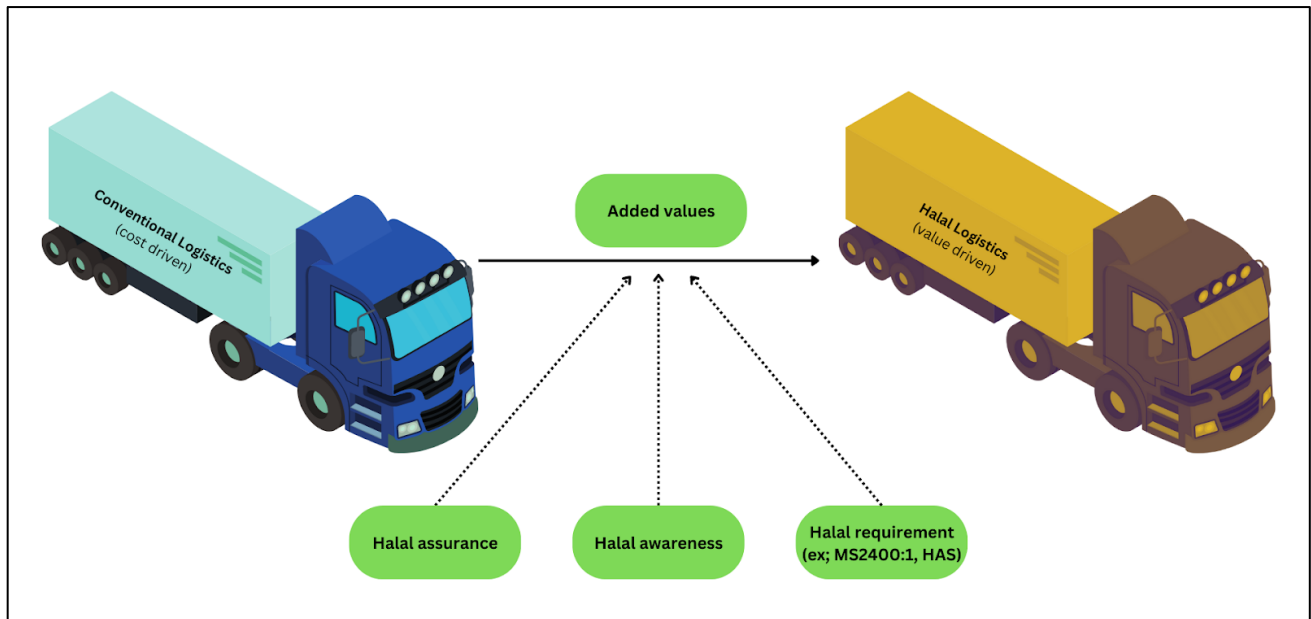


Fig. 1. Overview of the study

1.2 Literature Review

1.2.1 Business model and business model canvas

The term 'business model' has been defined in many ways, which differ depending on the study; holistic approaches are preferred by some writers, who define business models as sets of the agents involved and their business-based interactions, while other researchers prefer multi-perspective approaches in which the business model forms a model of reference so that various aspects of organisations or companies can be summarised [10,11]. Three distinct aspects of business models were identified by Bohnsack [12]: value propositions, value networks, and value or cost models; the elements could each be examined as their own model and employed as a conceptual model of doing business. According to Amit and Zott [13], business models portray how value is created by exploiting business opportunities through the design of transactions that can be illustrated through their structure, content, and governance. Another study discussed how strategies, management, and economic theories were connected in business settings, with Teece [14] outlining that customers' value propositions, as well as feasible cost and revenue structures for firms offering such value, were supported by data, logic, and various evidence, which was articulated in business models. Business models were regarded by Osterwalder *et al.*, [15] as conceptual tools consisting of element groups and their interactions that allowed specific firms' or organisations' business logic to be expressed. Meanwhile, past studies were utilised by Abdelkafi *et al.*, [16] whose conclusion was that business models illustrate how sets of value propositions are communicated, created, and delivered, as well as how value is captured, by companies. Various views on defining business models formed the subject of the analysis by Massa *et al.*, [17] who found that scientific interpretations of business models revealed three crucial perspectives: a business model is a firm's or organisation's attribute; it could be a cognitive schema; and it could describe a firm's or organisation's activities by representing them formally and conceptually.

Over the past ten years, academics and business practitioners have created various tools to examine business models. Recent examples include the 'Lean Canvas', the business model canvas of Fluidminds', the 'Plan Cruncher', 'IBM's components of business modelling', the Value Model', and the 'Business Model Canvas' [18]. Since certain building blocks within the BMC were deemed over

general by one scholar, it was adjusted to form the Lean Canvas version [19]. Meanwhile, the business model canvas of Fluidminds' emphasises value even more strongly; the foundation is valued in all blocks apart from the revenue model [20]. Meanwhile, IBM's component business modelling (CBM) focuses on giving an overview of what a business is doing [21]. Lastly, another BMC alternative is the Value Model Canvas (VMC), which addresses the former's limited features in terms of strategic purposes, competition, and abstraction levels [22]. The current study employed the business model tool of the BMC, as outlined in detail in a subsequent section.

Firms and organisations make extensive use of business model tools. However, it is stated that a business model was too static and unable to capture changes in strategy and lacked details [23, 24]. On the other hand, a Business Model Canvas (BMC) tool can act quite effectively in helping organizations or firms understand their business model; thus, it can be facilitated to the fullest [25]. Alexander Osterwalder described the BMC as a visual approach to guide a company to form strategies in Business Model Generation book, 2010 [26]. Nine aspects that are mutually dependent comprise the business canvas: the customer segment, the value proposition, the channel, the customer relationship, the revenue stream, and the cost structure, as well as the principal resources, partnerships, and activities. While the BMC can function as a visual application, it also facilitates discussions of and investigations into possible innovative schemes from which the company might benefit [27,28].

Furthermore, Osterwalder and Pigneur [29] argued that the creation of the Business Model Canvas followed business model development-based methods and theories of design science. The focus is on the delivery of accessible and visual outlines of business systems to assist the creative phase, in which business innovation prototypes are formed, feedback is collected, and iterations are revised [30]. Various practitioners and researchers have widely adopted their Business Model Canvas [31-35]. To integrate Halal logistics and SMEs, an ideal basis is the business model canvas because its adoption is broad, and it can be easily utilised by many and varied user groups.

1.2.2 Small and Medium Enterprises (SMEs)

In July 2013, the definition of the small and medium-sized enterprise (SME) was reviewed at the 14th meeting of the National Skill Development Corporation based on certain economic changes that had occurred after 2005. These included changes to structures, new trends in business, and inflated prices [36]. Every sector was covered by the new definition, from services to manufacturing, mining to quarrying, and agriculture to construction. In terms of SMEs in manufacturing, the definition provided by SME Corporation Malaysia [36] was 'a firm that did not exceed a sales turnover of RM50 million or had no more than 200 full-time workers. The definition of SMEs in the services and other fields was 'a firm that did not exceed a sales turnover of RM20 million or had no more than 75 full-time workers' [36]. Furthermore, SMEs have been widely recognised as making considerable contributions to the growth of the economy as they provide job opportunities, engage in innovative projects, and undertake exports, all of which might benefit developing countries like Malaysia [37, 38]. Given the major contributions they make to economic expansion and sustainable operations, SMEs have received greater attention in both developed and developing nations since the global recession of 2008 to 2009 [39].

A prediction by SME Corp Malaysia [36] suggests that the world's Halal market will be worth RM20.92 trillion by 2030; however, while various projects have been initiated, Malaysia still has too few SMEs. Generally, SMEs are very vulnerable and not robust enough to withstand economic and global competition. Thus, to survive, they must be able to utilize their resources efficiently and monitor their business, especially in terms of information resources [40]. Furthermore, SMEs differ

from large enterprises (the case of developing countries) in various ways such as lack of knowledge and information system management, insufficient funds, and inadequate resources [39]. However, Rizal (Chief Executive Officer of SME Corp) stressed that everyone hopes that the variety of efforts from various sides can eventually contribute towards greater SMEs involvement in the halal industry both domestically and internationally [36]. Therefore, applying the business canvas model, which acts as a visualization tool, can help SMEs identify their true potential.

1.2.3 Global halal industry

Since the populations of countries in the Organization of Islamic Cooperation (OIC) and non-OIC countries with large Muslim minorities are expanding, it is reasonable to predict that their use of Halal products will also increase. Interestingly, however, non-Muslims are becoming more receptive to such products [41]. Thirty years ago, the percentage of the global population who were Muslim was 18%, while this group now comprises 23%; by 2050, this will rise to 30% of the world's people [42]. Due to emigrants and migrants, 200 countries are experiencing growing internal Muslim populations. In Europe, this diaspora has led to a tripling of the continent's Islamic population, so this region will be second only to the Middle East and North Africa as the largest market for products made by Muslims [43]. Over the past twenty years, other global regions have been witnessing similar rises, including North America (91%), Australia and New Zealand (122%), and Asia (79%) [42]. Aside from that, Muslims nowadays are correspondingly ambitious, cosmopolitan, and willing to participate in consumer cultures [44]. Young Muslims comprise 43% and 11% of the world's Muslim and overall population, respectively. Such individuals tend to utilise new technology like iPhones and cable television extensively, which exposes them to global brands that focus on status and enables them to use such products [44]. This expanding group of Muslims are visible from France to Turkey, often pursuing lifestyles that mimic patterns of consumption associated with the West but with an Islamic character. For instance, the group might purchase head scarves from Hermes and abayas from Dior, consume Halal supplements, and use credit facilities that comply with the Shariah law [45]. The IHI Alliance identified an international standard for halal logistics: IHAS 0100:2010, or the 'ICCI-IHI Alliance Halal Standard: Logistics'; this covers warehouses, transport, and terminal buildings [5]. The challenge for these demands is how the Halal logistics providers are supposed to cater to their consumer's needs. The development of the newest products and services rarely occurs according to Muslim rules and practices [46].

1.2.4 Malaysia halal industry

As a country with the most professed religion Islam, Malaysia's Halal industry comprises various services and products. For example, in terms of foods, finance, health and pharmaceuticals and many more. As the demand for Halal products rises, the Halal logistics business's importance is also increasing [5]. Tieman and Ghazali [47] described Halal logistics as primarily the need to segregate cargoes based on their Halal or non-Halal character so that any potential cross-contamination is avoided, the system of logistics aligns with Muslim consumers' requirements, and the entire supply chain process is protected in terms of Halal integrity. Halal logistics differs from general logistics as it has strict regulations that must be followed. Malaysian Standards (MS) like MS 1500 (Halal food) and MS 2400:2010 (Halal supply chain management) are published by JAKIM in Malaysia and those standards outline the needs for Halal and logistics [48]. The main section of MS 2400:2010 states the minimum requirements for Halal logistics, with the three components of this MS referring to Halal logistical, warehouse, and retail activities [4].

Halal certification is a way of identifying halal products in the marketplace or a certificate of products adhering to the standards set out in Islam [49]. According to Bakar *et al.*, [49] Malaysia is a country where a Halal product certificate is vital. The general population will only be convinced that a product may be reliably and safely consumed if the producer or manufacturer has the certificate. However, statistics from the Economic Planning Unit and JAKIM show that fewer SMEs have halal certificates despite Malaysia being well-known as its Halal producer hub [49]. Therefore, an effort by SMEs to apply for a Halal certification can be seen as a value-added service and a reassurance for consumers.

1.2.5 Malaysian Standards (MS2400-1:2019)

The development of Malaysian Standards (MS) occurs by mutual agreement among committees comprising those who produce, use, and consume products or services, alongside other relevant stakeholders, which ensures the representation is in balance. MS may align with or adopt international standards. Unless an MS is made compulsory by a regulatory authority, their use is voluntary [50]. The conditions by which Halal supply chain management could be established and Halal certification could be applied for were outlined in the 2010 Malaysian Standards MS2400 (Halal supply chain management). As it is being reviewed periodically, the latest revision of MS was done in 2019. As a result, several changes have been made, such as the term 'toyyiban' has been deleted, the requirement for outsourcing being added, and the 'halalan toyyiban committee' being replaced with 'internal Halal committee'. MS2400 comprise three parts which are:

- i. Part 1: Transportation – General requirement
- ii. Part 2: Warehousing – General requirement
- iii. Part 3: Retailing – General requirement

The Department of Islamic Development Malaysia (JAKIM), as the certification body, has certified various Malaysian logistics firms with Parts 1, 2, or 3 of this standard [51]. The MS2400-1:2019 clearly outline several mandatory clauses as follows:

- i. Clause 3.1 – Requirements related to shariah;
- ii. Clause 3.2 – Management responsibility; and
- iii. Clause 3.3 – Halal system requirements

So that firms operating in Halal supply chain and logistics can adhere to every shariah requirement and/or shariah practice, the compulsory requirements are outlined in Clause 3. Furthermore, this clause sets out the aspects of management related to the plans, leadership, and organisation needed for the establishment of Halal logistics systems. A general summary of MS2400-1:2019 is that it describes several aspects of Halal logistics: the Halal input (e.g., Clause 3), the Halal process (e.g., Clause 6.0 - Requirements for a premise, infrastructure, facilities, and personnel), the Halal control (e.g., Clause 5.6 - Traceability), and the Halal output [50].

2. Methodology

The primary data source for this study was a case study, which was employed to obtain a deep understanding and useful insights [52]. This case study represented a common Business Canvas Model for Halal logistics businesses in SMEs. The studied company was a logistics provider that provides various services ranging from air and sea freight, warehousing, and door-to-door delivery. Besides, this firm also aimed to give particular Halal logistics of pharmaceuticals and medical devices for hospitals in Malaysia. The case study method has been used due to the research is at its early stage and the existing models appear sufficient.

Our selected case study is 'UCS Logistics Sdn. Bhd.' is a company that operates in Selangor, Malaysia, Hong Kong, China, and Vietnam. An in-depth case study is the only method that is suitable to discover companies' intention to embed Halal logistics within their business strategies [53]. Long-established and mature, the firm offers the potential to secure secondary data involving, for instance, product types, the most frequent purchasers, the conditions and competition of the market, the necessary resources, and the crucial activities.

The empirical study was based on complementary sources: focus group discussion (case study), documents analysis and narrative review. Focus group discussions are a form of interview conducted in depth with between six and 10 people. Those taking part must exhibit the appropriate attributes, which depend on the proposed project, size, personnel involved, and interview process [54]. In the current study, managers, and employees of UCS Logistics Sdn. Bhd. participated, which accounted for a total of 7 participants and their demographics will be shown in Table 1. Each in-depth interview covered every aspect of Halal logistics business, with the questions referring to elements of the Business Model Canvas. These included the main resources and partners, capacities, operations, segments of customers, and conditions of the market. Furthermore, a robust understanding of the dimensions of the firm's Business Model Canvas was obtained by examining wide-ranging secondary data from the firm's internal materials, such as their website, presence on social media, and blog entries. Any additional gaps were bridged with the inclusion of external materials published by the firm, like their reporting and presentations. The narrative review has been used to identify the previous study conducted for the Halal Logistics business in SMEs. A coding strategy was used as the basis for the qualitative research analysis method. Different concepts and their connections were coded in the data, based on the Business Model Canvas. All these methodologies have been visualised in a research design framework as shown in Figure 2 to facilitate better understanding.

Table 1
Participants' demographic table

Participant	Designation	Experience	Gender
A	CEO of UCS Logistics Sdn Bhd	25	Male
B	Director at UCS Logistics Sdn Bhd	25	Male
C	Business Development Manager at UCS Logistics Sdn Bhd	30	Male
D	Marketing Manager at UCS Logistics Sdn Bhd	20	Male
E	Freight Forwarding Agent (Sea Freight) at UCS Logistics Sdn Bhd	10	Female
F	Customer Service Executive at UCS Logistics Sdn Bhd	8	Female

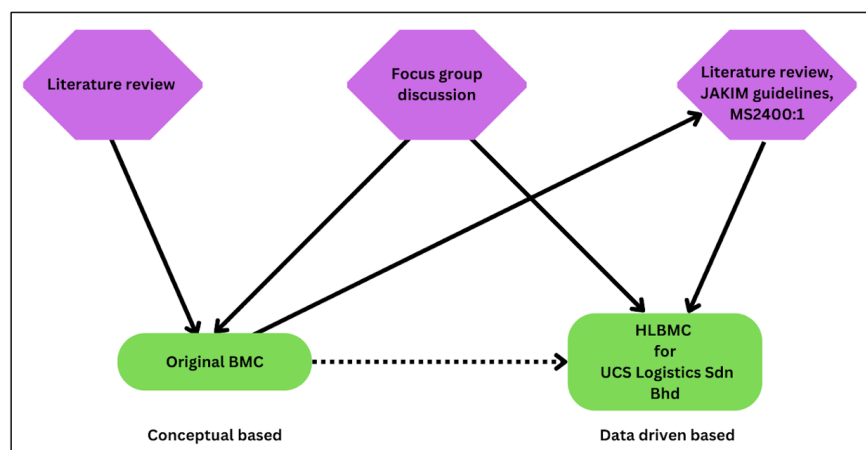


Fig. 2. Research design framework

3. Result

The findings are presented in this section. Firstly, a review is given of the main outcomes of the BMC development process (Figure 3). Next, all the building blocks in the final HLBMC version are described, utilising support from previous studies and the qualitative data obtained for the current work. Lastly, the section addresses the main contributions and implications of the study.

KEY PARTNERS	KEY ACTIVITIES	VALUE PREPOSITIONS	CUSTOMER RELATIONSHIPS	CUSTOMER SEGMENTS
<ul style="list-style-type: none"> Freight forwarding company Shipping agent International shipping partners/agents Logistic consultant Warehouse operator Insurance agent Haulier and transporter Labour supply agent 	<ul style="list-style-type: none"> International Freight Forwarding Freight Brokerage/ Cargo Sales Agent Domestic and International Transportation Consolidation & Break Bulk Warehousing & Distribution Project Cargo Movement Temperature Controlled Logistics Aircraft on ground (AOG) Pharmaceutical logistics eCommerce logistic 	<ul style="list-style-type: none"> Total logistic services including specialized items. Wide network coverage around the world. Reliable and timeliness services 	<p>Personal assistance</p> <ul style="list-style-type: none"> Company website Email Phone Online chats; viber, line, whatsapp, wechat. <p>Communities</p> <ul style="list-style-type: none"> Business conferences/ exhibitions <p>Long term</p> <ul style="list-style-type: none"> International forwarding agents 	<p>B2C market</p> <ul style="list-style-type: none"> Customer moving personal cargo from other countries <p>B2B market</p> <ul style="list-style-type: none"> Importer company Exporter company Manufacturer Retailer International network cooperation (agent)
<p>KEY RESOURCES</p> <ul style="list-style-type: none"> Logistic experts Staff with experiences with oversea business 			<p>CHANNELS</p> <ul style="list-style-type: none"> Partners indirect channel 	
<p>COST STRUCTURE</p> <p>Cost-driven</p> <ul style="list-style-type: none"> Cost optimization from customer high volume commitment. 		<p>REVENUE STREAMS</p> <ul style="list-style-type: none"> High margin revenues: Oversea freight. -Freight are chargers with additional certain percentage of margin. Low margin revenue: Handling and documentation charges -Handling charges are mainly at cost with a minimal services fee charged to customer. 		

Fig. 3. Original BMC of UCS Logistics Sdn. Bhd. (findings from focus group discussion)

3.1 The Halal Logistics Business Model Canvas (HLBMC)

Greater understanding of and support for Halal logistics that target SMEs entrepreneurs specifically can be facilitated using the visual tool of the HLBMC. The process of construction is utilised in the HLBMC to promote elements and introspection of the new business model canvas, which aligns with strategies for engaging consumers so that a company competes sustainably. A Halal logistics entrepreneur owner of an SME should find the HLBMC can be used practically and effectively as a visual tool so that:

- Their whole company can apply logistical and systematic thinking; and
- Halal logistics opportunities and difficulties can be identified, with the emphasis on SMEs and key stakeholders collaborating to solve problems.

The final version of the HLBMC is presented in Figure 4. Nine themes comprise the canvas: (1) the main partner; (2) the main activities; (3) the main resources; (4) the value preposition; (5) the customer relationship; (6) the channels; (7) the customer segments; (8) the cost structures; and (9) the revenue stream. Detailed explanations of every element except for channel are provided in the following subsections and the explanation of sustainable elements are presented in Figure 5. To

illustrate how the elements work, examples from the case study, focus group discussion, and narrative review are used. Detailed explanations are provided in the following subsections.

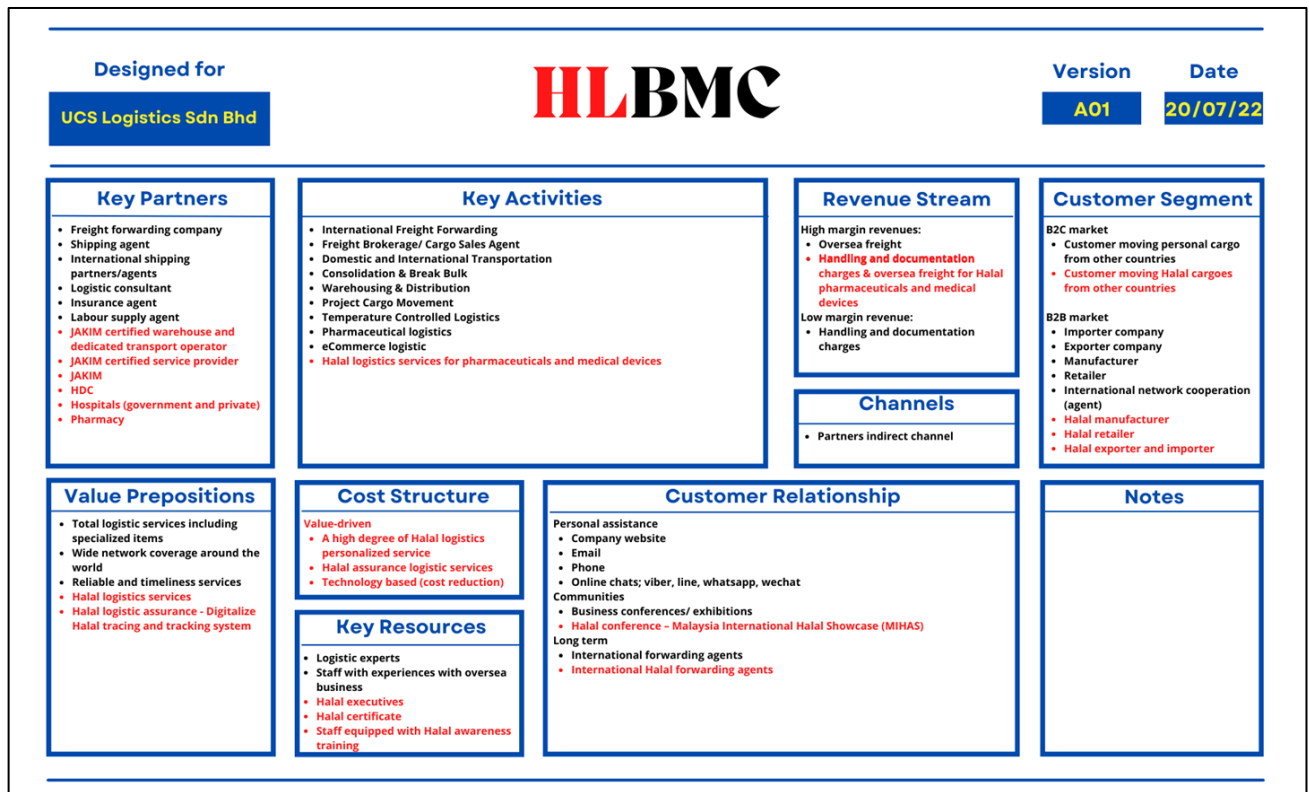


Fig. 4. HLBMC prepared for UCS Logistics Sdn. Bhd

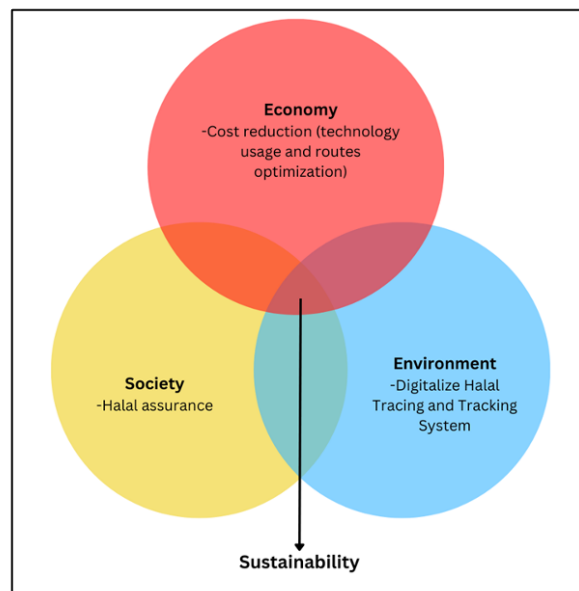


Fig. 5. Sustainable points in HLBMC

3.1.1 Key partners

Since companies are often deemed not to have access to sufficient resources and actions themselves so that their own value proposition can be created internally, a vital aspect of the canvas is networking; hence the need for "key partners" [18]. The BMC works by emphasising this networking aspect used by both the supplier and the partner [29]. Additionally, supplier-partner networking results in lower risks and costs, as well as access to hard-to-acquire resources [29]. As a firm's resources are complemented by the element of main partners, this is an essential aspect of a business model in terms of creating value [55].

The original BMC of UCS Logistics Sdn. Bhd. stated that freight forwarding companies, shipping agents, international shipping partners/agents, logistic consultants, warehouse operators, insurance agents, hauliers and transporter, and labour supply agents are their key partners. While focusing on delivering the services such as international freight forwarding, freight brokerage and air and sea freight, those key partners play vital roles in shaping the company's future. Freight forwarding and logistics key partners are critical as it is straight away connected to the main niche of the company and associations such as Selangor Freight Forwarders and Logistics Association (SFFLA) could benefit the company. SFFLA offers first-hand industry news, non-cheque deposits, workforce education enhancement, issues resolution, and networking opportunities for the company. The other key partners also have their specific contributions to the company.

Meanwhile, for HLBMC, the additional key partners are the Department of Islamic Development (JAKIM), JAKIM certified warehouse, dedicated transport operator and service provider, Halal Development Corporation (HDC), and government and private hospitals. Although Malaysia's halal accreditation has been recognized worldwide, the Halal logistics is still optional for entrepreneurs which means that the government does not make it compulsory for logistics companies to have Halal certificates from JAKIM [56]. JAKIM is an organization that handles the authority to issue Halal certificates in Malaysia [57]. Therefore, due to the new nature of business, JAKIM will be the leading key partner of UCS Logistics Sdn. Bhd. Next is the JAKIM-certified warehouse, dedicated transport operator and service provider. Naturally, the concept of Halal is chained through the process, starting from manufacturing the products until reaching the designated customer. Thus, this clarifies why a JAKIM certified warehouse, dedicated transport operator and service provider are crucial to UCS Logistics Sdn. Bhd. In addition, the minimum requirements to which Malaysian Halal logistics companies must adhere are stated in the first section of MS 2400:2019, whose three components outline the Halal logistics, warehousing, and retail operational requirements [56]. As for the Halal Development Corporation (HDC), they are well known for providing solutions for businesses to excel in the Halal industry. To accelerate the use of the HLBMC within UCS Logistics Sdn. Bhd., HDC is the secondary main partner after JAKIM. As the Halal Industry Development Council's (MPIH) secretariat in Malaysia, HDC coordinates operations centrally so that four main aims would be met: (1) the formation of strategic policies and monitors; (2) the enhancement and enforcement of certification; (3) the creation and traceability of standards; and (4) developments in the industry and the culture of entrepreneurs [58]. They also provide training, consultancy, advisory and exhibition platforms in the Halal industry. Halal logistics training programme for example will be conducted in two days period for about thrice in a year which provides chances for business to get current insight on issues related to Halal logistics. On top of that, the top management of UCS Logistics Sdn. Bhd. was a non-muslim, thus they may face some difficulties in understanding the Halal logistics concept. This is where the key partners such as JAKIM and HDC play their crucial role to ensure that this company is implementing the Halal logistics as per requirements. Besides, there are a few requirements in applying for a Halal logistics certificate (MS2400:2010), for instance, there should be a Halal

committee and Muslim employees in an organization, and the employees must be equipped with adequate Halal logistics knowledge and training. Lastly, government and private hospitals are UCS Logistics Sdn. Bhd.'s key partners because of their business nature. Focusing on delivering products to these hospitals and adding Halal values could increase chances and trust between key partners and firms [59]. On top of that, all of the key partners in HLBMC will be assisting in providing relevant data and information for the company to develop routes optimization systems which will also function in strengthening the company's Halal tracing and tracking system.

3.1.2 Key activities

Firms or organisations need to perform primary tasks to ensure the proper functioning of their business models, which are described as key activities [33]. In the view of Strategyzer, the key activities in the Business Model Canvas are those in which firms or organisations engage primarily to make profits. These actions may refer to the ways they operate, market, or make products, solve problems, and administer the business [60].

The main key activities for UCS Logistics Sdn. Bhd. in the original business model canvas was international freight forwarding, freight brokerage/cargo sales agent, domestic and international transportation, consolidation and break bulk, warehousing and distribution, project cargo movement, temperature-controlled logistics, aircraft on ground (AOG), pharmaceutical logistics and eCommerce logistics. As for the HLBMC, there is one additional point: Halal logistics for pharmaceuticals and medical devices. Due to the nature and possibilities of contamination, and the Halal segment is up against a demanding future, there is the need to focus solely on the mentioned key activities [61]. Therefore, the company aims to first focus on this point of Halal services and monitor their performance. Then, if proven effective, they will spread the Halal segments into the other key activities. Additionally, as the process in applying for a certified Halal logistics was not an easy journey at all, the activities needed to focus more on delivering Halal's value [62].

3.1.3 Key resources

The crucial assets needed to ensure a functioning business model are present in the BMC as key resources [29]. According to Barney (1991), to compete sustainably, companies need resources for creating, communicating, and delivering value propositions. Therefore, all businesses need sets of resources. A resource might be tangible, like a commodity, or intangible, like a patent, copyright, or even a skill [29].

The primary key resources of UCS Logistics Sdn. Bhd. are intangible assets such as logistics experts and staff that have experience dealing with overseas businesses. In the context of HLBMC, the company will need an additional intangible resource which is Halal Executives (key persons in managing Halal operations and well equipped with knowledge related to Halal logistics) and an intangible resource which is Halal Certification itself. The main constraint might be related to the complicatedness in applying for Halal certification itself. As elaborated by Wannasupchue *et al.*, [62] the Halal certification process is complicated, time consuming and the certificates are for a short period of time only. The employees must also be well versed with the Halal Assurance System (HAS) and Malaysian Standards (MS) to ensure full compliance in day-to-day operations.

3.1.4 Value prepositions

According to Osterwalder [30], central to the canvas is the element of the value preposition, whose purpose is to ensure consumers are served. Companies do not achieve longevity should their consumers' requirements fail to be met by their value prepositions. Thus, value prepositions need to be developed in a meticulous manner and feature products or services that create value for consumers. Customers' needs or problems in particular customer segments are complemented by the offer of value prepositions. A firm offers value in the form of, for example, reduced costs, lower risks, or improved pricing or performance [29].

An SME in the Halal logistics field would be able to use this element to create connections between their designs, their products and/or services, and the engagement of their consumers as part of transitioning to a circular economy (CE). A firm or organisation is often motivated by this element to determine ways to provide their consumers with value structures that adhere to the conditions of Halal logistics. Through a BMC centred on the user, the customer can access a meaningful solution and the business can profit [63].

In this case study, through the value prepositions element, the company initially aims to deliver comprehensive logistics services, including specialized items, provide a reliable and timeless service and have an extensive network coverage worldwide. As for the HLBMC, we added more value preposition: Halal logistics services for Halal pharmaceuticals and medical devices and digitalize Halal tracing and tracking system. Aiming to provide the best of those services would be the main goal for UCS Logistics Sdn. Bhd. Digitalize Halal tracing and tracking system would promote sustainability through reduction of carbon footprints. Cutting down or minimizing the paper usage is one of the easiest and yet effective ways to lessen the carbon footprint. In fact, in today's technological based world, there is almost no excuse for using paper or ink for printing because this practice is wasteful and it is also costly for both the financial and environmental aspect, as paper waste contributes to global warming and climate change [64]. As the traditional model is well-acknowledge for focusing on growing the profits, HLBMC will concentrate more on Halal adherence. In the aspect of consumers especially to Muslim consumers, Halal adherence services is important as it indicates that the goods that being transported is preserving the Halal integrity. Study conducted by Mursid and Wu [65] indicates that a company's Halal identity status successfully affects customer trust. Aside from that, as UCS Logistics Sdn. Bhd. is a logistic based company; it is important to gain manufacturers' trust and satisfaction as well. Halal assurance and services standard operating procedure are directly associated with manufacturers' trust and satisfaction [66]. This sustainable value-driven services will be able to instil trust and confidence among Muslim consumers which also in line with Islamic principles.

3.1.5 Customer relationship

The customer relationship is described by Osterwalder and Pigneur as a type of relationship that firms establish with particular segments of customers [33]. As one of the most critical elements in a BMC, the customer relationship must function as a system that facilitates the operations of flexibilities and connections between every stakeholder in an organization [67]. For the original BMC of UCS Logistics Sdn. Bhd., the customer relationships include three main aspects: personal assistance, communities, and the long-term aspect. Personal assistance includes company websites, email, phone, and online chatting services. The community segment had general business conferences and exhibitions, and the long-term involved an international forwarding agent.

As for HLBMC, the additional points are in the community's aspect (Halal conferences such as the Malaysia International Halal Showcase or also known as MIHAS) and the long-term part (international Halal forwarding agents). Halal logistics services can be categorized under non-existent demand. The customers are unaware or uninterested in these services due to the lack of exposure. Therefore, the benefits may promote selective consumption rather than a complete general service. A business may have the opportunity to access consumers, such as by employing the relationships it has with its customers, so that the development of Halal logistics services occurs more robustly and trustworthy via activities like conferences, which are centred on communities. Research by Faradina *et al.*, [68] indicated how important the use of Halal logistics was in the maintenance of Halal products' integrity across the whole Halal supply chain, which has experienced a gradual increase of customers who buy Halal products. Furthermore, international trading between Muslim and non-Muslim countries has been affected by the evolution of Halal, as in Figure 6 [69]. The delivery of a chain of Halal values is a growing contemporary trend, so UCS Logistics Sdn. Bhd. needs to improve the ways it markets itself when trying to reach possible customers and persuade them to adopt such specialised services.

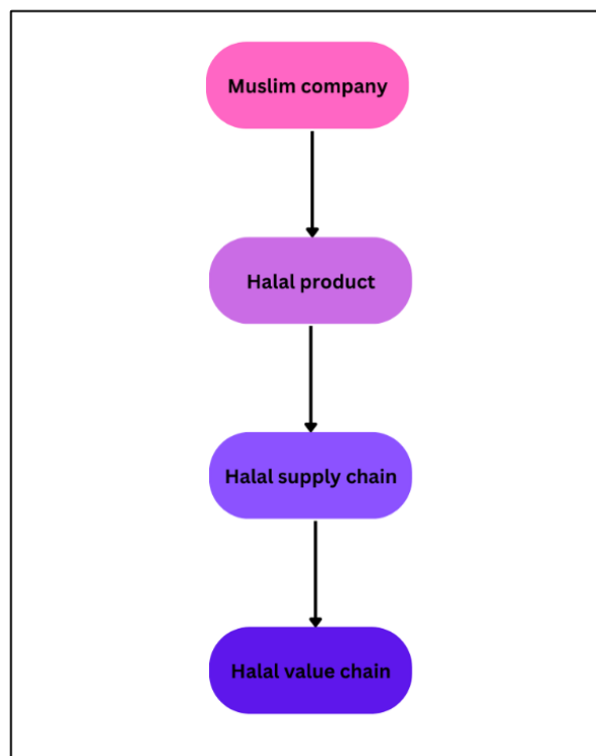


Fig. 6. Evolution of Halal by Tieman [69]

3.1.6 Customer segments

Companies attempt to find and access non-identical sets of individuals or bodies, which can be termed customer segments [29]. A company must acknowledge the customers' wants because a business will never exist without customers. Aside from that, it is essential to have a customer segment to which a value proposition element is added which is then attributed to making a bundle of services. The customer segment cannot be too broadly defined in a company because it will affect the value proposition offered, and thus it is unrecognizable as valuable. There are several factors to be considered in creating customer segments, including the variety and type of customers and the size of groups [18].

The original BMC listed customer was moving personal cargo from other countries as their business-to-customer and importer company, exporter company, manufacturer, retailer, and international network cooperation (agent) as their business-to-business customer segment. In HLBMC, there is an additional point in business-to-customer: customers moving their Halal cargoes from other countries to this country. To guarantee a firm's commitment to its customer segment, the firm should define their target and it can be found out by analysing the customer's surroundings as well as general surroundings, which attribute to customer's response behaviour to the firm's product or services [70]. Thus, the character of a customer is defined by their social setting, demographics, and geography, which enables the creation of consumer profiles that the services of a firm utilise.

3.1.7 Cost structure

Every cost a firm or organisation incurs in regard to the assets and ventures needed to operate business models is described, collectively, as the cost structure [33]. Unfortunately, a large number of new businesses (90%) failed in the first quarter of decades due to failure to comprehend their own costs and what is needed to offer the products and services that have been promised in the previous element (value proposition) [71]. How costs work depends on the firms' characteristics. It is also crucial to differentiate between types of costs and ultimately being able to come out with the firms' break-even point.

UCS Logistics Sdn. Bhd. the cost structure is related to customer high volume commitment cost optimization. Meanwhile, for HLBMC, UCS Logistics Sdn. Bhd. will be focusing entirely on the value-driven side that aims to provide a high degree of personalized Halal logistics services and to serve as one of the Halal assurance logistics services. The manufacturing stages are not the end points of Halal practices because a product or item can suffer the loss of its Halal status should contamination occur as it is being transported or stored before it retails [5]. Logistics bridges the gap from the production stage to the retail stage, making it a vital aspect of ensuring goods are established in terms of their Halal integrity, according to the consumer [72]. Halal logistics providers need to improve both upstream and downstream in their supply chains, which includes transport and warehouses [66]. The contamination risks mean that a variety of control points are required across the process [73]. By focusing on delivering the value of Halal logistics, UCS Logistics Sdn. Bhd. must also look beyond the Halal activities' implementation, which includes their customers' concerns [74]. Thus, UCS Logistics Sdn Bhd will implement a digitalized Halal tracking and tracing system and a Halal Assurance System (HAS) to enhance customers' trust in the offered Halal logistics services. In research by Adams [75], the Halal assurance of consumers and their commitment to meet the costs of Halal logistics services were shown to be significantly related. Moreover, the right information that came from the majority of the company's stakeholders will be facilitated in developing a routes optimization system to strengthen their Halal tracing and tracking system, which indirectly will reduce cost of UCS Logistics

Sdn. Bhd. This cost structure point is vital to reduce the carbon footprint as well as towards more sustainable services.

3.1.8 Revenue streams

Firms have continuously operated according to a business model. Still, until the mid-90s, they traditionally operated following similar philosophies, in which a service produced by the firm and its suppliers is delivered to a customer from which revenues are collected [27]. In the view of Abraham [33], the cash generated by firms or organisations from all their customer segments, which encompasses how, how much, and in what proportion, is represented by revenue streams. This element in the Business Model Canvas covers a firm's monetary gains from customer segments that had already been identified, but the firm's earned profit is not covered (it features revenue flow) [76]. UCS Logistics Sdn. Bhd. original BMC for the revenue streams element inclusive of high (overseas freight charges) and low margin revenue (handling and documentation charges for regular services).

Meanwhile, for HLBMC, the revenue stream element comprises high-margin revenue involving overseas freight charges for Halal products and its handling and documentation charges. Based on Machiba [35], UCS Logistics Sdn. Bhd. will gain revenues from its distinctive core value proposition, which is in offering new Halal logistics services with better assurance, performance and savings while maintaining its economic and social values.

3.2 Practical implementation

Firms interested in applying redesign canvas by incorporating Halal logistic services should first focus on resources, by appointing Muslim staff that meets the requirements of becoming Halal Executive. Further, they must invest in Halal Executive training for the appointed staff and Halal awareness for all staff that involved in the operation. Next, a firm must comply with all additional requirements as in MS 2400-1-2009 Halal supply chain management system - Part 1: Transportation - General requirements (First revision), and Manual Procedure Halal Certification for Domestic (MPPHM 2020). Upon compliance to all requirements, a firm can apply for Halal certification at Jakim Portal, followed by Halal compliance audit by Jakim. Finally, if all requirements are met and satisfied by Halal Certification Committee Malaysia, Halal certification will be issued by JAKIM.

Key performance indicators can be developed from the HLBM framework according to different phases of Halal Logistic Services to ensure continuous improvements of the Halal Logistics services. Other logistic components can be referred to Logistics Performance Index that has been developed by the World Bank [77]. The proposed key performance indicators is presented in Table 2.

Table 2
Key performance indicators for Halal Logistics Services

Phases	Key performance indicator
Halal application process	<ul style="list-style-type: none"> • Training and development for Halal executive • Halal awareness training for all staff • Compliance with Halal requirement (operational) • Development of tracing and tracking system • Compliance with Halal requirement (documentation) • Rectification for improvement requested by JAKIM • Timeliness of Halal application process

Table 2 (Continued)

Phases	Key performance indicator
Halal Logistic services Domestics	<ul style="list-style-type: none"> • Quality of tracking and tracing of Halal products • Compliance to Halal requirement • Compliance to Sertu requirement if necessary • Marketing to domestic customer • Customer satisfactions on Halal services • Halal training as per JAKIM requirement • Cost saving on transportation (routes optimization) • Timeliness of delivery
Halal logistic services international	<ul style="list-style-type: none"> • Quality of tracking and tracing of Halal products • Compliance to Halal requirement by JAKIM and country in operations. • Compliance to Sertu requirement if necessary. • Marketing to international customer • Customer satisfactions on Halal services • Halal training as per JAKIM requirement • Cost saving on international shipment • Timeliness of delivery

4. Conclusion

In the current study, a revised Business Model Canvas was developed, which was termed as the Halal Logistics Business Model Canvas (HLBMC), the aim is to assist entrepreneur owners of Halal logistics companies to develop Halal logistics services that are sustainable. An exact and compact mechanism is provided in the canvas to structure thoughts and discuss the potential benefits and issues faced by entrepreneur owners of Halal logistics companies in this setting. The canvas was developed based on a case study, documents analysis and narrative review. The primary data were gathered through a focus group discussion within UCS Logistics Sdn. Bhd. The HLBMC was tested and refined using the focus group discussions and analysis of the documents so that it would be guaranteed to fulfil the SME Halal logistics entrepreneurs' needs. The nine elements most likely to be encountered by Halal logistics entrepreneurs while they delivered such specialised services were the basis of the final canvas version.

The current study contributes in various ways to the knowledge bases of both those in academia and those operating in practical settings. In academic terms, a gap in the existing works is bridged by the HLBMC in regard to the requirement for entrepreneur-targeted tools focused on Halal logistics. In the process of developing the canvas, an extensive body of literature was utilised, such as that related to SMEs, models for business, and Halal logistics, supply chains, and services markets. This disparate literature could be best understood by obtaining a theoretical foundation from the perspectives and works on systems and Halal logistics services. As the Halal logistics services field is experiencing rapid advancements, new insights have been provided by the qualitative data obtained during this study that contribute to our understanding of the difficulties faced by Halal logistics SMEs, as well as ways to address these issues among businesses that prioritise values and personally ethical and moral behaviour. Therefore, a crucial bridge is provided by the HLBMC that links the work of academics and practitioners. From the perspectives of the latter, the HLBMC presents the entrepreneur with a visual tool to use strategically and entrepreneurially, and it is tailored to the functions of their specialised services. Any entrepreneur would be able to examine the elements

iteratively and in a way that is convenient for themselves and their company. Meanwhile, it is also a challenging creative application to use for areas outside their services. Over time, applying the HLBMC may help entrepreneurs build more sustainable Halal logistics services. The creation, description, and offering of this visual HLBMC tool represents a potential way of overcoming the barriers faced by entrepreneurs in the Halal logistics field.

The study makes an overall contribution in the form of new knowledge, which may lead to existing conceptualisations being rethought in regard to the roles played by the SME in the development of a Halal logistics field that operates more sustainably. Nevertheless, the BMCs now in use suffer from excessive costs, complexity, or conceptualisation, or the fact that their development was directed towards major corporations, while their application requires experts. Further shortfalls include failures in their holistic support of entrepreneurial practices in Halal logistics, like an emphasis on the involvement of stakeholder, the engagement of consumers, and transitioning to a circular economy. This gap is addressed in the study, in which a holistic approach is proposed and exemplified to harness the services' value-driven strengths at the level of the SME. Additionally, system and design thinking are emphasised in this HLBMC, which integrates the practices of a business model canvas with those of Halal logistics. Thus, a vital and opposite baseline is provided with which subsequent researchers might examine ways to obtain support for SME entrepreneurs from the Halal logistics industry.

The study still contains limitations. Additional assessments and comments might enhance the HLBMC by addressing any omitted features or offering enlightenment on aspects that perhaps lack appropriateness. The focus of future scholars could be the addition of depth to all elements of this HLBMC version. For instance, researchers might explore the development of key performance indicators (KPIs) linked to Halal logistics entrepreneurs. KPIs generally present the chance to study the components of a trustable provider of Halal logistics services [78, 79]. General KPI for Halal Logistic Services is proposed as baseline to develop specific SME firms KPI reflecting their business operations. Future research should also consider other type of businesses as their main case study. Whereas Halal services have been introduced by numerous firms - by offering Halal storage and warehouses, for instance - researchers have not explored the demand for Halal logistics services or how to measure progress in that direction. Other elements within the canvas would benefit from the use and application of similarly intricate advances.

Acknowledgment

The researchers would like to thank Universiti Malaysia Terengganu and UCS Logistics Sdn. Bhd. for providing funding support for this project (UMT/PPRG/2021/55307).

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