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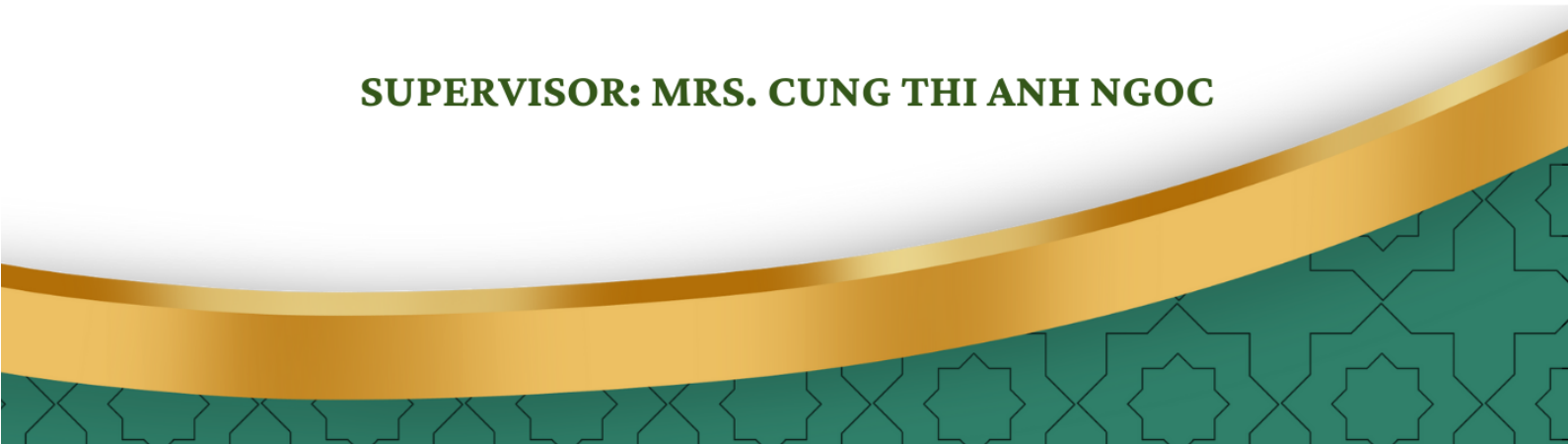
**FACTORS AFFECTING
EXPORTING COMPANIES' SATISFACTION ON
HALAL CERTIFICATION SERVICE QUALITY:**
A case study of Halal Certification Agency Vietnam



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Authors of the thesis

ABSTRACT

The purpose of this study is to look into the factors affecting exporting companies' satisfaction on Halal certification service quality - A case study of Halal Certification Agency Vietnam. Based on the well-known SERVPERF model, we pose the question regarding five service quality dimensions that may impact the satisfaction of exporting companies. Among the predictors are Tangibles, Reliability, Responsiveness, Assurance, and Empathy. Furthermore, this study examines the moderating function of Brand Awareness to see if exporting companies' perceptions of HCAV's Brand Awareness influence how they perceive HCAV's service quality. We performed a simple linear regression analysis and a moderated multiple regression analysis on a sample of 193 responses from an online survey to test our hypothesis. The regression study revealed that Reliability, Responsiveness, and Assurance positively impact exporting companies' satisfaction with HCAV's service quality. Results also confirm that Brand Awareness positively moderates the relationship between Reliability and exporting companies' satisfaction and that between Assurance and exporting companies' satisfaction. Theoretical and managerial implications are also discussed.

Keywords: Halal, Halal certification, service quality, customer satisfaction, Brand Awareness

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ABBREVIATION AND ACRONYMS LIST

HCAV	Halal Certification Agency Vietnam
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HCA	Halal Certification Agency
JAKIM	Jabatan Kemajuan Islam Malaysia
GCC	Gulf Cooperation Council
ESMA	Emirates Body for Standardization and Metrology
MUIS	Islamic Religious Council of Singapore
CICOT	Central Islamic Committee of Thailand
KFDA	Korea Food & Drug Administration
OCOP	One Commune One Product
MUI	Majelis Ulama Indonesia
ISO	International Organization for Standardization
HACCP	Hazard Analysis and Critical Control Point System
GSO	GCC Standardization Organization
GMP	Good Manufacturing Practice
GAP	Good Agricultural Practices
REL	Reliability
CAGR	Compound Annual Growth Rate
ASS	Assurance
RES	Responsiveness
EMP	Empathy
TAN	Tangibles
INT_	Interaction Term_



CHAPTER 01



This chapter introduces a summary of the research background, objectives and questions, scope and briefly mentions the methodology and overview of data.

Chapter 1: Introduction

1.1. Background

1.1.1. Topic background

In the decade of cross-border cooperation, internationalization has opened up a diverse trade market among countries. In general, consumers are increasingly concerned with the safety aspect of food in their daily diets. Spreading all over 112 countries around the world, to Muslim people (followers of Islam), their goal is now not only to comply with religious requirements but also to choose products with clear information and free from harmful ingredients (Latif, I., *et al.*, 2014). Around 1.8 billion Muslims resided in the world in 2018, accounting for approximately 24% of the world population (Yun, E., *et al.*, 2020). The number of Muslims worldwide is predicted to rise to 2.2 billion by 2030 (Altalib, H., *et al.*, 2019). Moreover, the entire Islamic market was worth approximately US\$2.2 trillion in 2018, and it will be valued at US\$3.2 trillion in 2024, according to Thomson Reuters' State of the Global Islamic Economy Report 2019/20. In the context of the expeditious development of international trade, the Islamic market is rapidly focused and identified with great potential.

To Muslims, they must totally obey strict rules which are formed from Sharia Law in all aspects of daily life (YUN, E. *et al.*, 2020). The keys to opening this potential market are the Halal standard and Halal certification. Accordingly, Halal is an Arabic term that indicates the meaning of permissible (K Randeree 2019). The process of certifying goods or services as compliant with Sharia law is known as Halal certification. This certification system was first launched in Malaysia in the 1980s and has subsequently spread to other nations as well as to other goods and services. As a result, there are numerous different Halal standards, including local standards (created by the Halal Certification Organization or a national standards development agency), regional standards (such as the Halal standard of the Arab Gulf Cooperation Council), and worldwide Halal standards (International Halal Integrity Alliance - IHI Alliance and The Standards and Metrology Institute for Islamic Countries - SMIIC). A product meets the Halal standard when the product itself, the manufacturing process, transportation, and storage do not violate Islamic Law. It now covers services involved in the logistics of Halal products and is used in the supply and production of goods encompassing processed foods, cosmetics, pharmaceuticals, and medical items (Khan M.I. *et al.*, 2016). The Halal standard not only fulfills a religious criterion but is also one of the new standards that assure consumers of product safety and quality. The market for Halal food was worth \$1.369 trillion in 2018, and it is predicted to rise to \$1.972 trillion by 2024 (YUN, E., *et al.*, 2020). Following the global trend, Halal certifications are now becoming increasingly vital for global citizens, the Halal certification agencies, and exporting companies entering the Halal market.

Recently, Halal certifications have become crucial for both Muslim and non-Muslim customers since they safeguard consumer rights and religious values while encouraging a belief in trust and certainty in protecting a healthy lifestyle (Khasanah *et al.*, 2021). It is guaranteed by standards of safety, hygiene, and quality. Halal certification is considered a mandatory "passport" to be able to export goods into the Muslim market. This is a license certifying that a product meets the Halal requirements for ingredients, Halal standards, and norms. The benchmarks for Halal certification not only concern the product's raw materials but also cover the entire production, processing, packaging, labeling, storage, and transportation processes.

Landing in Southeast Asia, Vietnam is a rich natural resource and fruitful country which takes many advantages of manufacturing products, not only for domestic but also for exportation. However, in terms of the Halal market, the Halal certification service in Vietnam has not been seriously taken for granted. The number of Halal certification agencies in Vietnam is limited and at most operates in the shape of private economic organizations. Some reputable and long-term Halal Testing Agencies in the field of Halal consulting, certification and issuance of Halal Certificates can be mentioned as: Halal Certification Agency Company Limited, Vietnam Halal Centre Company Limited, Viet Nam Halal Inspection And Certification Company Limited, Halal Certification Agency Vietnam, etc.

Due to the specifics of the applicable law, the Halal Certification Agency, as an organization engaged in testing and providing certification, is not only managed by business and investment registration agencies but is also required to abide by the rules of the Government Committee for Religious Affairs. Additionally, it is the duty and power of the Government Committee for Religious Affairs to approve the projects and operating plans of the Halal Certification Agencies. Besides, to increase prestige in the market as well as for Halal Certificate to be recognized in Muslim countries, Halal Certification Agencies must be recognized by Halal Certification Committee in the world.

Presently, Halal Certification Agency Vietnam (HCAV) is the only organization in Vietnam that has achieved international recognition by: JAKIM (Malaysia), GCC Accreditation Center (GAC), ESMA (UAE), MUIS (Singapore), CICOT (Thailand), KFDA (Korea) and a member of the World Halal Food Council (Word Halal Food Council). Awareness of the complexity of issuing the Halal certification and emphasizing customer satisfaction when using Halal Certification Agency Vietnam service, the authors aim to investigate this topic: **Factors affecting exporting companies' satisfaction on Halal certification service quality - A case study of Halal Certification Agency Vietnam.** At long last, the

ultimate goal of this research is to figure out a way to enhance the service quality of HCAV to level up their customers' satisfaction.

1.1.2. Company Background

Mr. Tran Xuan Giap (Mohammed Omar), founder of HCAV, nurtured the idea of building an agency to support production companies so they would have an opportunity to approach the Islamic market. In 2006, he decided to establish the Halal Certification Agency Vietnam (HCAV). It is a Vietnamese company that provides Halal certification for customers who want to export goods to Muslim-majority countries or to Western countries where there are many population groups that adhere to Islam. HCAV offers Halal Certification programs that fully meet all the rigorous requirements of all markets including demanding markets. The company complies strictly with Sharia law and the standards of Halal and other activities that follow the rules of many international Halal the organizations. Up to now, HCAV has 3 branches in Hanoi, Ho Chi Minh City and Can Tho and the headquarter is located at 3rd Floor, Hai Van Building, 129B Tran Dang Ninh, Dich Vong Ward, Hanoi.

Vision

HCAV provides services that evaluate Halal products and issue the Halal certificate. The services have reliability, independence, and international recognition. All of the Halal services would support many exporters and businesses in Vietnam in approaching the international market, increasing the reputation of them as suppliers in the worldwide market, and ensuring that all of the products that they export to Islamic countries can meet the requirements of Sharia law. Furthermore, customer satisfaction is the key standard of HCAV. The company ensures the satisfaction based on the development of a good relationship with its customers, which allows HCAV to anticipate and respond to rapidly changing needs as the current global marketplace changes.

Mission

1. Encourage and create best practices to guarantee the integrity of Halal throughout the whole supply chain of the Halal business.
2. Encourage Muslim and non-Muslim consumers to understand and accept halal products on a worldwide scale.
3. Conduct research, impart information about Halal, and offer Halal industrial solutions.
4. Harmonize Halal standards with different governments.

1.1.3. Significance of the study

Recently, Vietnam has taken mature steps to enter the global Halal market but still does not promote all its potential. At a CAGR of 14.6%, the market for Halal food is projected to reach \$2228.63 billion in 2026 (The Business Research Company, 2022). Nonetheless, statistics in 2019 show that Vietnam's supply of potential products for Halal is 10.5 billion

USD, still low compared to the demand from countries in the Organization of Islamic Cooperation (OIC) needed for products Vietnam can export, which is 34.1 billion USD, so Vietnam has missed 23.6 billion USD of exports to the Halal market (Vietnambiz, 2021). Furthermore, since Halal products and Halal certification operations are not widely known, numerous products that do not adhere to Halal criteria are produced and certified. For instance, approximately 50 Vietnamese businesses receive Halal certifications annually, and only 20 products from Vietnam are exported to the Halal market, which is a small proportion of its overall exports. Besides, Vietnam does not have its trade promotion mechanism for Halal products and faces stiff competition from many countries with similar export structures, familiarity and strong positions in Muslim markets (Baoquocte, 2021). Therefore, the Ministry of Industry and Trade has encouraged Halal certification agencies in Vietnam to establish and strengthen cooperation with state management agencies on Halal certification in countries with great demand for importing Halal food such as: UAE, Egypt, Indonesia, Malaysia, Saudi Arabia, etc.

All of the actual situations above are derived from many reasons. One of them comes from the limitations and inadequacies that appear in Halal certification service in Vietnam. For the first, limitations probably originate from exporting companies. Many exporting companies have met standards such as OCOP (One commune one product), and organic agriculture certification, etc. but cannot achieve Halal certification. There is a possibility that Halal production and exportation have difficulties in investing in production lines, separate equipment, safe sources of raw materials, and stages of packaging, transportation, and preservation. With all the insufficiency conditions above, according to Halal standards, these products cannot achieve Halal certification. Besides, many exporting enterprises that choose the Muslim market may not have paid attention to learning the Islamic culture, including consumer culture, business culture, and regulations required for Halal products. The inability to obtain Halal certification can also come from the fact that exporting businesses do not understand Halal products and the process of providing Halal certification.

Besides, there are also many reasons stemming from Halal Certification Agencies Vietnam. It is feasible that the team of inspectors monitoring the production of Halal products has certain limitations. They may be limited in terms of expertise, lacking technical means and processes to test and evaluate products as required. Moreover, for Halal certification organizations, leaders and auditors must follow Islamic law, while human resources meeting these criteria are still very limited, thereby creating difficulties in Halal certification. The limitation may also originate from the lack of coordination between customers and HCAV.

These problems above, if not resolved, will seriously affect HCAV's customer satisfaction. Hence, the purpose of this study is to assess the influence of HCAV service quality on its customers' satisfaction and propose some recommendations for HCAV to improve its service quality.

1.2. Research objectives

The main objective of this study is to evaluate the customers' satisfaction on Halal Certification Agency Vietnam's service quality. The authors suggest some implications for how to improve service quality. The research follows these objectives:

Objective 1: To identify which are the factors that affect exporting companies' satisfaction on Halal certification service quality and the extent of their influence.

Objective 2: To propose recommendations for HCAV to improve service quality and enhance customer satisfaction.

1.3. Research questions

To fulfill the proposed objectives, this study will focus on answering two main questions:

RQ1: What are the factors that influence exporting companies' satisfaction on HCAV's service quality, and the extent of their influence?

RQ2: What are the possible recommendations and implications for HCAV to improve its service quality and enhance its customer satisfaction?

1.4. Research scope

This research was undertaken to discover the factors affecting exporting companies' satisfaction on Halal certification's service quality of HCAV. Therefore, the research strongly emphasizes on Halal Certification Agency Vietnam. Moreover, the study was based on collecting primary data from expert interviews and surveys of exporting companies and customers of the Halal Certification Agency Vietnam.

1.5. Methodology and data overview

With the intended purposes, the study will target Vietnam exporting companies that are using HCAV's Halal certification service. Qualitative data will be used with an in-depth interviewing method. Quantitative data will be used with the questionnaire that has been carefully reviewed and gathered from prior research. The study used primary data that was collected through in-depth interviews and email surveys. Through the Statistical Package for the Social Sciences (SPSS), data will be used for analysis in order to find the relationship between service quality factors and customer satisfaction. Reliability analysis, Descriptive analysis, Exploratory factor analysis, Regression analysis, Correlation

coefficient analysis and Moderated multiple regression analysis will be used for data analysis.

1.6. Conclusion

The aim of this chapter is to introduce the topic and provide general information related to it. The first chapter consists of the background of the study, involving the introduction of the topic background as well as the company background. In this chapter, researchers also focus on the importance of the study by stating the potential of Halal market and the limitations of both the Vietnam market and HCAV. In addition, this chapter also contains research objectives, research questions, research scope, as well as methodology and data overview.

1.7. Research outline

The research has 5 main chapters (abstract, references, tables, figures, abbreviations, and appendices are excluded), which are: Introduction, Literature review, Methodology, Findings and Analysis, Recommendations and conclusion.

Chapter 1: Introduction is a summary of the research background, objectives and questions, scope and briefly mentions the methodology and overview of data.

Chapter 2: Literature review will define the research keywords, as well as summarize prior related papers, in order to find out what are the possible relationships between the variables. From there, this study will identify the literature gap, and research models with hypotheses will be built based on what has been reviewed.

Chapter 3: Methodology will briefly discuss the research philosophy and ethical considerations, as well as how the research process has been done. The choice of data collection and analysis methods is also mentioned and explained.

Chapter 4: Findings and Analysis will summarize the results after analyzing the data using the methods mentioned in Chapter 3. The results will answer each research question and hypothesis, especially how much each of the factors affects exporting companies' satisfaction when using the HCAV's service.

Chapter 5: In this last chapter, the authors will summarize the main findings, then suggest some recommendations for HCAV. This chapter will also mention the research's limitations and implications.



CHAPTER 02



This chapter defines the research keywords, as well as summarizing prior related papers, in order to find out what are the possible relationships between the variables.

Chapter 2: Literature review

2.1. Halal and related terms concept and definition

2.1.1. Halal definition

“Halal” is a word that originated in Arabic which means “permissible” or “lawful” (YUN, E., *et al.*, 2020). According to Shahidan Shafie (2006), “Halal” is one of the most crucial concepts within Islam, which indicates the status of legal action. Linguistically, the verb “halla”, which means “to get or attain the state of being lawful, legitimate, valid, acceptable, authorized, permissible, admissible, unrestricted” is the root of the term “Halal” (Rahman *et al.*, 2022). “Halal” especially refers to actions that Muslim people take day by day under Sharia law.

The concept of Halal is now more important to business since they must meet the needs of their Muslim consumers or even non-Muslims, for instance, to gain their trust when buying and selling in this sensitive area of Muslim beliefs (Tourc, 2012). Halal is not normally linked to food or food-related products (as most people anticipate or believe), but it stretches beyond food to encompass all facets of a Muslim's life (Khan *et al.*, 2016). Regardless of food and beverages, it is also concerned with personal rights, code of conduct, animal welfare, social equality, and environmental sustainability, among other things (Adinugraha *et al.*, 2021). In compliance with Rahim *et al.* (2013), along with non-food items like cosmetics, medicines, leather crafts, and fragrances, Halal is also related to services including banking, entertainment, tourism, and logistics (Junaidi, 2020). For instance, Halal categories are: milk (from cows, sheep, goats, and camels), honey, fish, fresh vegetables or dried fruits, grains (wheat, rice, oats, etc.), and nuts (peanuts, cashews, hazelnuts, etc.) (Halal Certification Agency, 2018). Several animals, such as chicken, goat, deer, sheep, etc., are also considered as “Halal” but must comply with the slaughter process according to Islamic rites. At the starting point, the person who slaughters animals must be a Muslim and well-trained about the process. The animal must be laid on the ground (or carried if it is smaller) and its throat slashed with a very sharp knife to ensure that the three major blood veins are severed. The person must utter the name of God or say a benediction that includes the name of God, like “bismillah, allah-u-akbar,” during the process (Jallad, 2008). In recent years, the concept of Halal has spread throughout the world and now encompasses not only ethical and moral business practices, concern for animals and the environment, human slaughtering processes, social equality, and welfare but also the highest-quality goods and services to satisfy customer demands in a globally competitive marketplace (Latif *et al.*, 2014).

2.1.2. Haram definition

In contrast, “Haram” is an antonym of “Halal”. In conformity with Baalbaki (1993), “Haram” is defined as “taboo, inviolable, sacred, holy, ill-gotten, sin, wrongdoing, offense”. A behavior, code of conduct, or thing that is categorically prohibited by the Quran is referred to as "Haram." (Kamali, 2013). In other words, it denotes a behavior that is morally or legally prohibited. If a behavior is haram, Muslims must abstain from it at all costs. Some instances of haram include pork (ham, gammon, and bacon), pork-related products (sausages), and animals that were wrongfully slaughtered or that were already dead before they were butchered (Jallad, 2008).

However, Islam and the Muslim code of conduct are not that simple. Due to Sharia law, “Halal” and “Haram” has been classified into five categories: fard or wajib (obligations for Muslims to perform); in the middle level are mandub or mustahab (recommended actions but not forced to accomplish), mubah or jaiz (Sharia law allowed but not encouraged to perform by Muslims), or makruh (an action that Sharia law does not prohibit but which is best avoided). Lastly, actions can be haram, as mentioned above, is a behavior that Muslims must not participate in since it is forbidden by Sharia law (Yun *et al.*, 2020).

2.1.3. Sharia law

Both “halal” and “haram” refers to Muslim code of conduct under Sharia law. Sharia, which is another word for "way" in Arabic, is the law that governs all parts of Muslim life, including daily routines, responsibilities to family and religion, and economic relationships. This law is formed by “Islamic teachings” and principles originating mostly from two sources. The most crucial source for Sharia law is considered as ***Quran*** (the Muslim holy book) and the second one is ***Hadith*** - a written record of Prophet Muhammad's life and way for Muslims to follow (Al-Qaradawi, 2001; Wiechman *et al.*, 1996).

2.2. Halal certification

2.2.1. Definition

The procedure of verifying goods or services that comply with Sharia law is known as Halal certification (Khan *et al.*, 2016). In other words, a Halal certificate confirms that a product meets the requirements for ingredients and production according to the Qur'an and Sharia (Muslim Sharia law). As clearly mentioned by the Halal Certification Agency Vietnam, Halal certification is an international standard assessment program for responsible products/ services. It is also reported by Hanzae *et al.*, (2011) that Halal certificate is a statement given by an Islamic organization evidencing that the goods it covers adhere to Islamic dietary laws. This is an independent, objective review process to recognize that the specific products/ services evaluated do not use Haram components and

that the manufacturing/ service provisioning conditions meet the requirements of Sharia law and Halal standards. Products required to achieve Halal Certification in Muslim markets are divided into 4 main categories: food and beverages (excluding wine and beer, alcohol); medicine; cosmetics; functional food products. In addition, the standards for Halal certification not only concern the product's raw materials but also cover the entire manufacturing process. Most plant-based products are required to comply with Halal standards, but if the manufacturing process of the product is contaminated or uses banned substances, the product will become “Haram” (Halal Certification Agency, 2018).

2.2.2. Halal certification standard

The standards for Halal certification not only concern the product's raw materials but also cover the whole production, processing, packaging, labeling, storage, and transportation processes. During the production process, firstly, exporting companies need to have an appropriate separation of factories between the production of Halal and non-Halal products. Additionally, in order to produce products and choose raw materials, exporting businesses must adhere to Halal management systems or other systems like ISO 9001, ISO 22000, HACCP, etc. In addition, raw materials for Halal certification must meet several strict requirements. The goods must not contain any haram (forbidden) ingredients or non-slaughtered animals as defined by Sharia law. All ingredients must be Halal and have supporting documentation, such as certificates of ingredients or in-depth analyses of substances, attesting to their Halal status. Moreover, exporting businesses are required to perform physical and biological product analysis to make sure the products are free of prohibited ingredients listed by Sharia law. Additionally, exporting businesses must create a list of ingredients, a diagram of the production process, and a plan for quality control of the product before modifying its formula or production process in order to receive formal clearance from the Halal certification body.

While purchasing raw materials and evaluating supplier selection, exporting companies must organize the evaluation and maintain a record of the supplier selection. Besides, contractual agreements and pledges are necessary for exporting companies, and they must give priority to choosing suppliers that are Halal certified. A letter of guarantee is also necessary to ensure that the ingredients are not from non-Halal sources when the supplier is not identified.

In general, each Halal certification agency will also audit the packing procedure. The packaging area needs to be spotless and bug-free. Exporting companies need to plan for cleaning and pest control schedules and take action to guarantee that all finished products are maintained in suitable hygienic conditions. Additionally, Halal products must be kept separate from non-Halal products while being packaged and distributed. A system for

unqualified product recalls and a system for food quality management must be established by exporting businesses. Additionally, exporting companies are required to maintain the cleanliness and proper equipment of any cartons, containers, and vehicles used to deliver baked goods.

Halal certification also has strict packaging and labeling requirements. Whereby, exporting companies must make sure that the packing materials are not against Sharia law or hazardous to the public's health. The packaging must be clean and uncontaminated before usage. Packaging needs to be filled with information, including: (i) Product name; (ii) List of ingredients; (iii) Net weight and gross weight; (iv) Origin (C/O); (v) Consignment number; (vi) Production date and storage instructions; (vii) Expiration date; (viii) Halal seal; (ix) Name and address of the company. Exporting companies must ensure that there is a certified Halal label according to Halal requirements. Therefore, through the above requirements, Halal products meet all the criteria of Islamic law as well as in terms of product quality assurance and user safety.

2.2.3. Regulations on Halal Certification in several countries

According to the Government Committee for Religious Affairs of Vietnam, regulations governing Halal certification activities and the model of Halal certification organizations change slightly by country, but they all share features like having a canonical council that is Muslim and knowledgeable about Islamic law, a technical expert panel made up of people with qualifications in chemistry, biology, or food-related fields, and board certification as qualified Muslims in doctrine, statute law, and food standards.

For instance, in the United Arab Emirates (UAE), the Emirates Authority for Standardization and Metrology (ESMA) will be responsible for the standardization activities. In 2015, the UAE released a replacement standard for GSO 1931:2009 with general requirements for Halal foods, such as: all Halal products must adhere to Islamic law at every stages of the Halal food chain, involving the use of food additives and ingredients for production, packaging, labeling, transportation, and distribution, store, display, and service Halal food.

In addition, in Malaysia, the Department of Islamic Development Malaysia (JAKIM) is an agency under the Malaysian Government, which has the function of granting Halal certification for Islamic products when exporting or importing into Malaysia. Currently, JAKIM is the only Halal certification body in Malaysia and also the state management agency, monitoring and enforcement of Halal regulations in Malaysia. Malaysia has issued the Malaysian Standard MS 1500:2009 to apply to Halal food products in the country. Foreign Halal products imported into Malaysia must be recognized by JAKIM. JAKIM has

also acknowledged a Vietnamese Halal certification body. Currently, the international community has recognized Malaysia as one of the leaders in the Halal industry because it has launched many initiatives to build, develop and promote Halal products to the world.

In Southwest Asia, in the area of Halal certification, the legal foundation for state control is still inadequate in Vietnam. Over time, legal documents on belief and religion have not made it clear how religious groups can engage in socioeconomic operations, such as those connected with Halal certification. Activities of product certification with cultural or religious aspects are not particularly governed by the Law on Product and Goods Quality or the Law on Standards and Technical Regulations.

Halal certification is a religious practice, and Halal items must adhere to health and food safety regulations established by Sharia law and the Muslim community, as well as the Qur'an. Only a few Muslim-owned enterprises and a few Muslim groups in Vietnam now give Halal certification; there is neither an association nor a state entity that does so. Halal certification organizations have a team that is knowledgeable in Islamic religion, Islamic law, and Halal laws. Some of these organizations are active due to their market research capabilities. Over the years, Vietnam's Halal certification has made some positive contributions to the export of agricultural and aquatic goods to Muslim nations. However, the efforts in Vietnam related to Halal certification still show shortcomings. Since organizations lack the requirements to certify agricultural goods processed from animals, the majority of Halal certification units can only certify processed aquatic items and select agricultural products from plants. Breeding and processing must adhere to several Halal standards. Breed animals, feed, and other agricultural and aquatic items are produced by a technique that the present Halal certification units have not certified.

2.2.4. Halal certification services in Halal Certification Agency Vietnam (HCAV)

2.2.4.1. Scope of services

Now, Halal Certification Agency Vietnam offers three Halal certification programs, including the Jakim Halal Certification Program, the GCC (Gulf Cooperation Council) Program, and Halal MUI Certification Program. First, the Jakim Halal Certification Program has a one-year certification period. It is described as suitable for all kinds of products: food, cosmetics, raw materials, and services. This certificate is valid for export to all countries except Indonesia and the GCC (Gulf Cooperation Council). Next, the GCC program is forced to only require food certification. This assessment and certification program is only valid for the GCC market (including Kuwait, Dubai-UAE, Qatar, Oman,, Saudi Arabia, Yemen and Bahrain). The firm receives three certificates with a three-year expiration date following a successful certification evaluation. Last but not least, the Halal MUI certification program has a one-year due date. This certification applied only to

products that were ingredients, semi-finished products, or flavorings. With this certification, businesses can export to most countries except Malaysia and GCC countries.

2.2.4.2. Halal certification process

According to the General Requirements for Halal certification (2019), HCAV certification process complies with all applicable laws, regulations, and standards. The procedures are not intended to stop or make it difficult for organizations that want to apply for HCAV certification, but rather to guarantee the reliability and effectiveness of certification activities. Halal certification may be annual or batch-based. No matter their size, scope, financial situation, or personnel, any company with a valid legal existence may submit a certification application. However, HCAV must decline to approve any organizations that carry out similar operations to HCAV in order to preserve objectivity and avoid conflicts of interest, since doing so might jeopardize the impartiality of the certification decision.

In particular, the whole process takes place in the following order:

Step 1: Submission of certification application

Exporting companies sign up for Halal certification consulting services and select a certification program appropriate for the export market. According to three certification programs - Halal JAKIM, GCC, and Halal MUI, HCAV will choose the best certification program for customers based on their needs.

Step 2: Sign the certification contract after informing the certification fee

HCAV carefully checks the application and informs the company about the cost of the certification. After two parties comply with the terms of the certification contract, it must be signed.

Step 3: Audit

Stage 1 Audit: Stage 1 Audit's objective is to ascertain whether implementing the Halal Standard is practicable before moving on to Stage 2 Audit.

The Stage 1 application process includes:

- Company profile (including organizational chart).
- Business registration or establishment decision.
- Operational licenses (if any).
- Production process/diagram of certified products.
- Test results of certified products.
- Other certificates such as ISO, HACCP, GMP, GAP (if any), etc.
- Documents proving the ingredients and additives do not contain any Haram ingredients.

After conducting an audit on the requested document, HCAV will inform the organization that it must be given time for the stage 1 audit to be limited to 90 days from the time it is ready (meeting all conditions, such as a signed contract and the payment of 30% of the contract amount). After this time, the application is deemed to be void.

Stage 2 Audit (onsite audit): The stage 2 audit's objective is to determine whether a product complies with the criteria for awarding a Halal certificate, which requires experts to visit exporting companies' factories for assessment.

Step 4: Audit reports

The audit report is produced by the auditor following the onsite audit, and it is then given to the client and HCAV for review and certification decision-making. The audit team creates the audit report at the conclusion of the onsite audit and submits it to the client and HCAV for evaluation and certification decision-making. If a non-conformity is brought up, the organization is required to take corrective action and deliver a report to HCAV with supporting documentation within 30 days after the onsite audit. HCAV is in charge of evaluating the effectiveness of corrective action.

Conformity in Halal certification audit:

HCAV will assess Halal compliance through periodic or surprising audits when there is evidence that the company does not comply with the requirements of Halal standards. When auditors discover within the period following the issuance of a Halal certificate, any modifications made by the makers without HCAV's prior approval will cause the certificate's validity to be suspended or revoked.

These changes can be major or minor non-conformities (NC):

- Minor: Regarding safety and hygiene, the records are incomplete, the control does not meet the requirements (e.g. the use of prohibited chemicals, food safety & hygiene, pest control).
- Major: regards changing ingredients, using non-Halal certified meat ingredients, changing suppliers, machinery, and relocation of the factory. Non-conformities (especially major non-conformities) mentioned above will result in the suspension of the certificate and the company must take corrective and preventive actions.
- Serious issues: Involves the use of Haram (prohibited) ingredients in production (e.g. not killing animals according to Islamic rituals, using pork or pig derivatives (gelatin), etc.). Violations of these NCs will result in the revocation of the issued certificate.

Step 5: Certification decision

Before granting certification, HCAV submits the audit reports and supporting documentation to the Certification Committee for evaluation. The committee will then assess whether the audit has been conducted as needed, according to the procedure, and

whether any non-conformities have been timely and successfully addressed. At least 45 days before the certificate expires, an audit for re-certification needs to be conducted.

Step 6: Surveillance audit

The following situations necessitate doing the surveillance audit:

- JAKIM, MUI Scheme: When the audit team finds out the risk of Halal, they advise executing a single surveillance audit on a regular basis.
- GCC Scheme: Annual surveillance for the GCC Scheme is required and must be done at least 45 days in advance of the scheduled surveillance time.

When a grievance or appeal is made by related parties (consumers, the competent authority, etc.), regarding a breach in Halal manufacturing, an unscheduled audit may be carried out.

2.3. The importance of Halal Certification to exporting companies

2.3.1. Exporting

Export is an international trade activity where services and goods are produced by a country and sold to buyers in other countries. Exports are important for the development of nations' economies (Hessels & van Stel, 2011). It contributes significantly to the growth rates since people and many firms have a chance to penetrate the worldwide market and gain new experience and knowledge that allow them to approach modern technologies and gain global and foreign customer insight. Recent studies have said that exporting can improve management skills and capabilities, resource management of a company, and increase its flexibility for taking on a variety of business risks (Pinho & Martins, 2010). On the other hand, exporting gives specific businesses a competitive edge and improves their financial situation, capacity utilization, and technical advancements from a microeconomic standpoint. Furthermore, exporting is a common way for many companies, especially those of small and medium-sized enterprises (SME), since it involves little risks, and low financial and human resources, at the same time, enables them to test the market and approach the potential markets where their products may have a new context (Anderson & Gatignon, 1986).

2.3.2. Exporting companies

Exporting companies, which can be called as the exporters who send their goods/services to other countries for trading purposes. In other words, exporters are individuals, businesses, or other entities engaged in international commerce who are prepared to offer their wares in a more expansive and competitive market than the domestic one (A. Isgut, 2001). Many companies have chosen exporting as an entry mode so that they can expand their market and increase their profitability.

2.3.3. The importance of Halal Certification to exporting companies

Today, Halal-certified products, goods, and services are widely recognized, and consumption is increasing even among non-Muslims because of the guarantee of "safety, hygiene, and quality" standards. Due to the growing worldwide market, Muslim-majority nations are no longer the only ones where Halal food may be purchased.

According to the Vietnam Association of Seafood Exporters and Producers, Halal food market with annual revenue of trillions of USD and expected consumption in the future, will continue to grow rapidly, especially the product groups with advantages of Vietnam such as tea, seafood or other agricultural products. To seize the opportunity, the construction of raw material areas as well as meeting the standards of market requirements have been implemented by enterprises. Vietnam's export products, such as rice, coffee, pepper, tea, aquatic products, fruits, cereal products, copra, etc., have penetrated and gained a foothold in the Middle East - Africa markets, where more than 30% of the population is Muslim.

The authors did an interview with Mr. Tran Xuan Giap, the founder of HCAV. He shared his opinion on the importance of Halal certificates for exporting companies. From his perspective, Halal certification is one of the "passports" to this market. Having Halal certification for products also means that each exporting company has the key to opening the door to the Muslim market. Halal certification combines many different aspects and connotations, not only in quality standards but also with high religious significance. Consequently, in order to produce the proper goods and target the appropriate Halal food market segment, it is necessary to have a certain understanding of knowledge, culture, and religious knowledge. Thus, Halal certification is required when importing certain goods into all Muslim countries and for customers who follow this religion. As a result, adopting this certificate will create trust with customers for meeting both quality control and food safety and hygiene requirements.

Lastly, Halal certification is the simplest and most time-saving proven method for product quality control (Halal Certification Agency). One of the most beneficial things is that Halal certification facilitates company participation in the global supply chain for halal goods, facilitates marketing, sales, and access to the Muslim market.

2.4. Service quality and customer satisfaction

2.4.1. Service quality

The service industry is becoming increasingly vital in many countries' economies. Delivering great service is seen as a crucial strategy for success and sustainability in today's globally competitive world (Parasuraman et al., 1985; Reichheld & Sasser, 1990;

Zeithaml et al., 1990). Researchers have provided many different definitions of service quality. Abbasi-Moghaddam et al. (2019), and Parasuraman et al. (1985, 1988) described service quality as the companies' ability to meet or exceed customers' expectations. It is the gap between what consumers expected from a certain service and how they view its performance. Service quality is a distinct and vague term, most services cannot be weighed, measured, cataloged, verified, or confirmed in advance of the sale to secure excellent delivery (Parasuraman, 1988). Quality is often achieved through service delivery and interactions between customers and service business staff. Because services are more like performances than objects, specific technical criteria for consistent quality are rarely set and enforced by the company. As a result, service quality is heavily dependent on staff performance, an organizational element that cannot be controlled to the extent that elements such as Tangibles items can. The core features of services include intangibility, heterogeneity, simultaneity, and perishability (Cowel, 1984; Yarimoglu, 2014). Services that are intangible cannot be felt, tasted, or smelled, making it challenging for clients to assess their quality. The intangibles side has an impact on customer satisfaction through service performance. Given that no two services will be exactly alike, heterogeneity makes it challenging to evaluate service quality. The simultaneous creation and consumption of services is referred to as simultaneity and is thus a product of the interaction between consumers and staff. The service is perishable since it cannot be retained, stored, resold, or recalled Yarimoglu (2014).

2.4.2. Customer satisfaction

The definition of satisfaction is the degree to which a product level is seen as meeting the buyer's expectations. When customers' expectations for a product or service match the actuality experienced, satisfaction can be felt. Consumers will be disappointed if the goods or service fall well short of their expectations (Oktareza et al., 2020). Customer satisfaction is one of the main objectives of every business. Businesses are aware that keeping their current clients is more profitable than finding new ones to take their place (Naik et al., 2010). According to Cengiz (2010), satisfaction is an assessment of a product's quality made after a purchase based on the original expectations. It is considered the final outcome of all activities conducted during the purchasing and consumption process, not only observation or direct use of the service or product (Cengiz, 2010). Customer satisfaction is an overall appraisal of the organizations that provide goods/services based on their whole purchase and consumption experience throughout time (Mohammed & Rashid, 2018). Customer satisfaction may be experienced in a variety of circumstances and applies to both goods and services. It is a very subjective assessment greatly affected by client expectations. Interactions with the firm, as well as personal traits, have an influence on customer satisfaction. Cengiz (2010). Customer satisfaction assesses an organization's performance in relation to its customers' demands. This also serves as a measure of service

quality. Customers may provide feedback on service qualities to remark on products and services (Pakurár et al., 2019).

2.4.3. Relationship between service quality & customer satisfaction

In today's economy, firms who fail to deliver high-quality products and services lose clients to competitors (Cheng & Rashid, 2013). Customers now have higher expectations and better quality standards, therefore businesses must be customer-focused, give customers more value, build relationships, and focus on market engineering. Businesses today evaluate their overall performance, customer satisfaction, consumer expectations, and even competitors. Service quality refers to the delivery of services, whereas customer satisfaction refers to their experiences with services. Customers' perceptions of a product or service are influenced by its demand, the availability of rival services in the market, and the information accessible to them. The customer then conducts a comparison based on these criteria (Lenka et al., 2009). Clients' expectations, in general, determine customer satisfaction before they obtain a service and may be measured using the equation: "Customer Satisfaction = Perception of Performance – Expectations" (Ullah, 2012). If a company fails to deliver exceptional service to its customers, it is unlikely that the company can keep the trusted customer (Behera, 2018). Therefore, service quality plays a crucial part in consumer satisfaction. Additionally, the associations between customer satisfaction and each service quality factor have been investigated (Tuncer, 2020). Lenka found that a favorable impression of the quality of the service provided is one indicator of a satisfied consumer (Lenka et al., 2009). Many studies have found that service quality positively impacts customer satisfaction (Hussain et al., 2015; Dam S. M., & DAM, T.C., 2021; Santouridis & Trivellas, 2010; Paul et al., 2016). With all the prior findings, we could perceive service quality as an indicator and predictor of customer satisfaction.

2.5. Related model

2.5.1. Factors affecting customers' satisfaction on service quality

2.5.1.1. The model of Baizuri Badrudin (2012)

The purpose of this study is to assess service quality performance from the food manufacturers' viewpoint. Malaysia intends to be the key player in the Halal market, as it has JAKIM (international recognition of the Malaysian Ministry of Islamic Development), one of the most distinguished Halal audit systems in the world in producing Halal certification for its clients. The process of providing Halal certificates in JAKIM entails both an official site inspection of the manufacturing plants and a verification of the Halal status of the raw materials.

In this study, the authors collected surveys from 547 small and medium-sized enterprise manufacturers in Malaysia and used the SERVQUAL model to find the gap between

customers' expectations and their perceptions of JAKIM's services. The results show that Empathy was the most critical dimension of JAKIM's service quality, followed by Responsiveness, Reliability, Assurance, and Tangibles. The less important dimension is Tangibles, because of the professional look of JAKIM's communication material, employees, and facilities available. Furthermore, the Responsiveness dimension has the highest expectation level from respondents, while the Tangibles dimension has the lowest. For perceptions, the Assurance dimension has the highest perception level, and the empathy dimension is rated at the lowest perception level. In general, the result reveals that JAKIM has not reached customers' expectations in all five dimensions of service quality and points out the weakness of JAKIM's system in delivery service.

In conclusion, by using the SERVQUAL model, which contains 5 factors to examine the overall service quality of JAKIM and its impact on customer satisfaction, the organization can identify the key dimension to focus on and have appropriate and effective strategies for improvements.

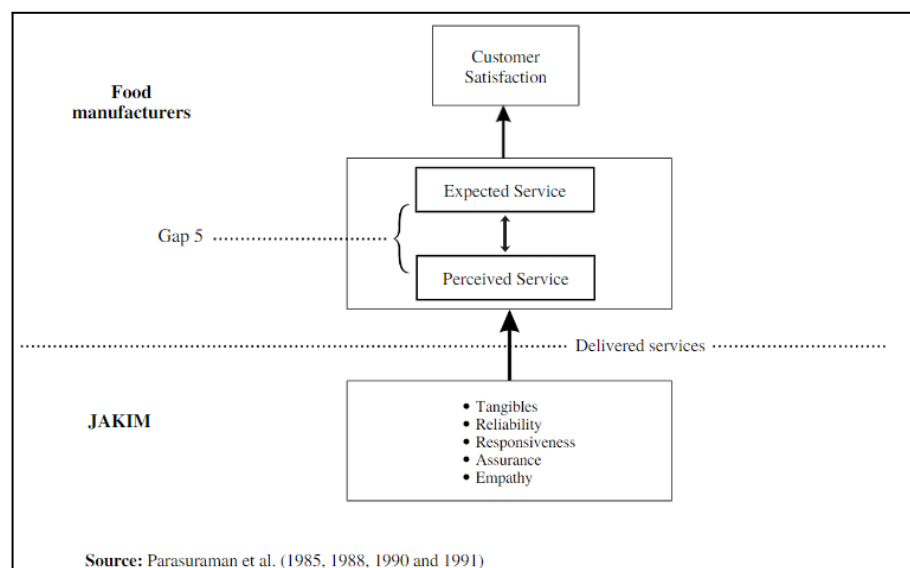


Figure 2.1: "A Conceptual framework of SERVQUAL for JAKIM service quality"

2.5.1.2. The model of Mariam Setapa et al. (2020)

This study investigates the relationship between customer satisfaction and the quality of the services provided while using Halal-certified services. The interviewees' backgrounds included a variety of fields, including the hotel business, the food industry, and the cosmetics industry. In short, those who actively participate in the Halal certificate application procedure make up the sample unit of this study.

In this paper, 100 respondents have participated in a JHEAIK ("Jabatan Hal Ehwal Agama Islam Kelantan")-organized course. The response rate, however, was just 77 (77%). The author used the SERVQUAL model's Assurance, Empathy, Communication, and Security

as independent factors, with Customer Satisfaction as the dependent factor. The measuring model evaluation also includes convergent validity, discriminant validity, and internal consistency reliability. SmartPLS 3.2.1 software was used to analyze the data in order to determine the link between service quality and customer satisfaction. The results demonstrate that the Empathy dimension is the only one that has a link with customer satisfaction, whereas the others do not.

In conclusion, Empathy is the most significant dimension influencing customer satisfaction, and the 3 remaining factors did not support the hypothesis. Therefore, to improve the service quality, the authors suggest that JHEIK should conduct workshops to provide knowledge and enhance the self-confidence of their employees when serving customers. Besides, effective communication and responsive action were also highlighted as the main keys to satisfying customers.

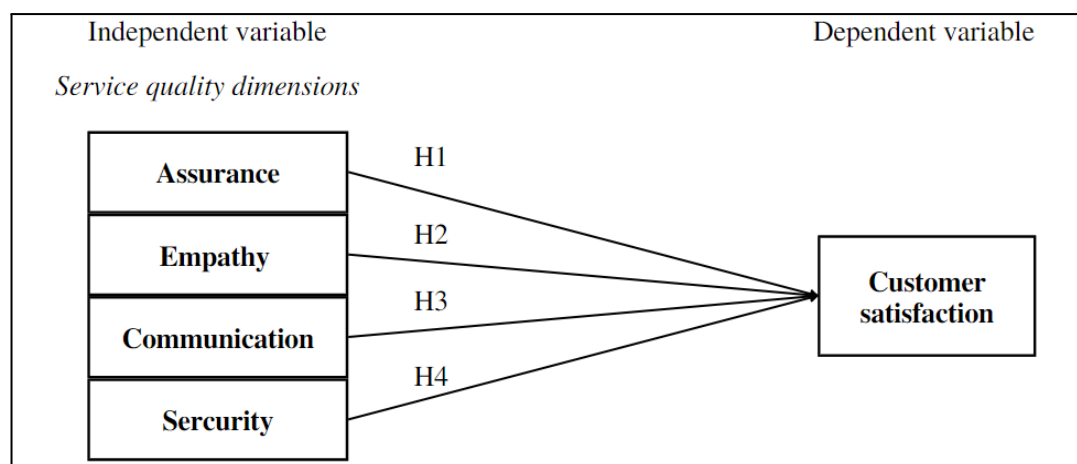


Figure 2.2: “A Conceptual Framework with Hypotheses Development between Service Quality Dimensions and Customer Satisfaction”

2.5.1.3. The model of Mariam Setapa et al. (2020)

The purpose of this study is to ascertain how customer satisfaction and service quality (including tangibles, reliability, and responsiveness) relate to applications for Halal certificates. The interviewees' backgrounds ranged from the hotel industry to the food industry to the cosmetics industry. In a nutshell, the sampling unit for this study consists of those who are actively involved in applying for and receiving Halal certification.

The questionnaires were distributed with the help of JHEAIK staff during course registration. The sample size needed for this study, which had a 100-person population, was 79 (within a 5% error). The client satisfaction with the actual service rendered by JHEAIK as a Halal certification provider in Kelantan is also a key subject of this study. It focuses on three aspects of service quality in particular: Responsiveness, Reliability, and Tangibles. The authors used SmartPLS 3.2.1 software to analyze the data.

The findings show that during Halal certificate applications, Tangibles and Reliability determine customer satisfaction but Responsiveness has no bearing on customer satisfaction. According to the authors, the institution (JHEAIK) needs to enhance the Responsiveness dimension. Customers of JHEAIK will be pleased with a prompt response.

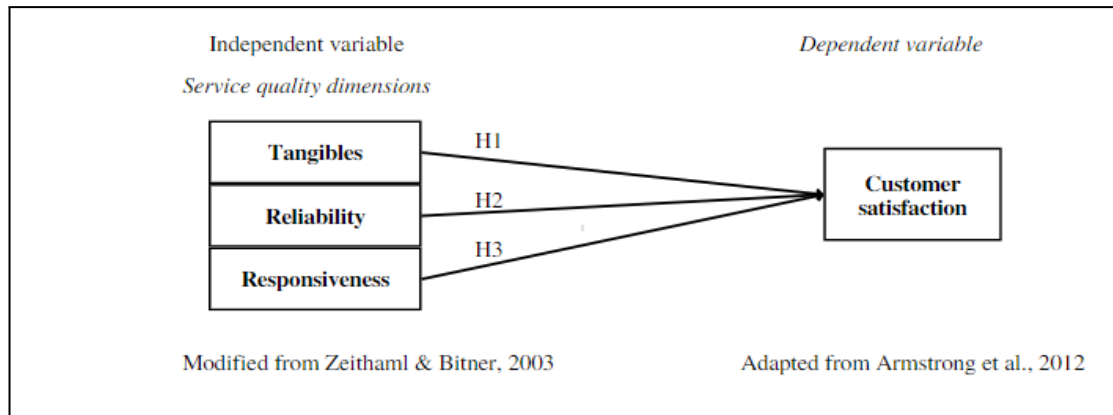


Figure 2.3: “A Conceptual Framework with Hypotheses Development between Service Quality Dimensions and Customer Satisfaction”

2.5.1.4. The model of Putri, H. M., Dachyar, M., & Nurcahyo, R. (2021)

In order to improve service quality for Halal certification in the Indonesian food industry, which is carried out by the Indonesia Halal certification agency, the research aims to identify dimensions/factors that are essential as well as find out which factors customers are typically dissatisfied with. The study employed the fuzzy-SERVQUAL approach to identify critical elements influencing service quality. There are five stages of the research. The first stage involves selecting a topic based on current events in the industry, particularly Indonesia's current Halal certification procedure. A review of previous research on Halal certification, the creation of a background investigation, the goals of the study, and pertinent methodologies are then presented in order to identify any existing issues. According to expert judgment results, there are 25 qualities that are ready to be provided to respondents. The following step is to collect data from the Indonesian food and beverage sector. The fuzzy-SERVQUAL technique is used to process data at the fourth step. The fuzzy-SERVQUAL processing outputs are the quality dimensions that need to be improved. Finally, the findings of the data processing are analyzed and discussed.

According to the findings, the Responsiveness dimension tops the list of attributes with the greatest gap value, with speed being the major feature most expected in terms of Responsiveness. The second major gap value, Reliability, indicates that workers at the Halal Certification Agency have not been able to become advisers for consumers who have specific concerns. One of the Tangible factors was among the top five with the greatest

service quality gap. It addresses the application of current technology in the Halal certification procedure.

2.5.1.5. The model of Lai-Ying Leong, Teck-Soon Hew, Voon-Hsien Lee, Keng-Boon Ooi (2015)

The study takes a fresh look at the SERVPERF by combining it with an “SEM-artificial-neural-networks predictive analytic” technique to investigate the impact of the SERVPERF on customer satisfaction and loyalty across low-cost and full-service airlines. This study differs from earlier ones in that it contributes to using “expert systems and intelligent algorithms in the context of low-cost and full-service airlines”. The finding shows that SERVPERF dimensions significantly affected customer satisfaction and loyalty, with 63.1% and 55.6% of the variation explained. Initially, a pre-test with two experts was conducted to determine the content and face reliability of the survey questionnaire. The questionnaire was then evaluated in terms of phrasing, readability, relevancy, and time spent in a pilot test with 30 passengers. Finally, a convenience sampling strategy was used to give a cross-sectional survey questionnaire to 350 passengers at Kuala Lumpur International Airport (KLIA) for two weeks. 50 of these surveys were invalid due to missing information. The structural equation modeling (SEM) approach with maximum likelihood estimation (MLE) was used and evaluated with AMOS 18 to investigate the causal link between the constructs. The findings indicate that Tangibles, Reliability, and Responsiveness are all major determinants of customer satisfaction, with Responsiveness being the most important.

2.5.1.6. The model of Cronin & Taylor (1992)

The authors examine how service quality is conceptualized and assessed as well as the relationships between customer satisfaction, purchase intent, and service quality. The importance of the relationship between service quality, customer satisfaction, purchase intentions, and a different method for operationalizing perceived service quality is next examined by the authors. A comparison of alternative service quality metrics was done. The importance-weighted SERVQUAL scale, the performance-based approach to service quality evaluation (SERVPERF), and the importance-weighted SERVPERF scale were all reviewed by Cronin and Taylor. The results of this study point to a performance-based measure of service quality that, when compared to the SERVQUAL scale, requires just half as many items to be measured. Because Cronin & Taylor only take into account the perceived value with a total of 22 questionnaire items in the SERVPERF model, the SERVQUAL model requires the authors to measure both the perceived service quality and expected service quality of consumers. It also implies that: (1) service quality predicts customer satisfaction; (2) consumer contentment considerably influences purchase intentions; and (3) service quality has a smaller impact on purchase intentions than

consumer satisfaction. Future studies and the consequences for managers are also underlined.

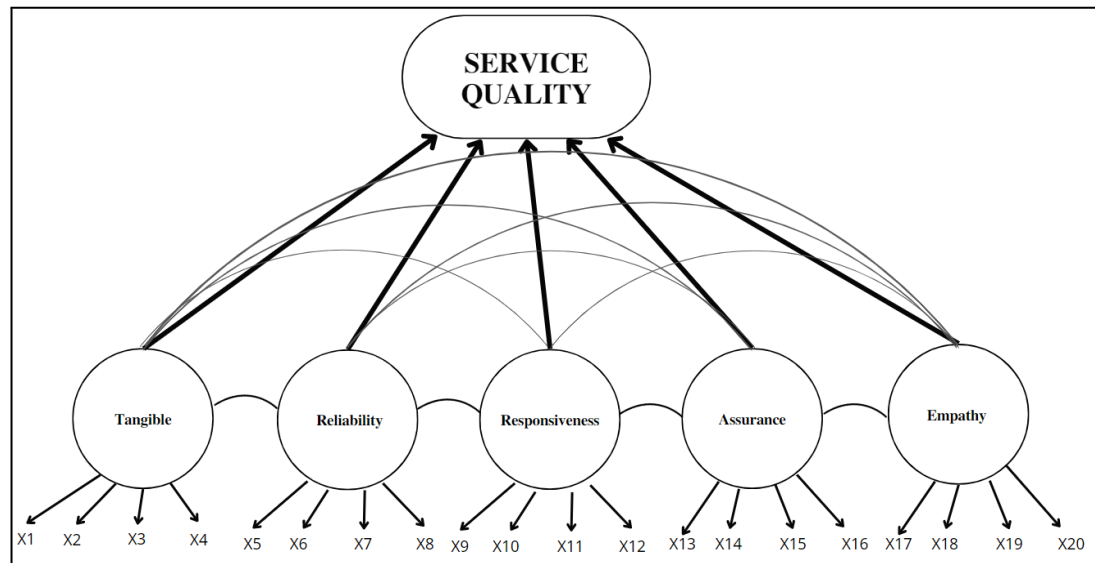


Figure 2.4: “Conceptual Framework with Hypotheses Development Service Quality Dimensions”

2.5.2. Research model using moderating variables

In addition, there are several researchers who not only used the original model of SERVQUAL and SERVPERF but also added moderating factors to their research model. In particular, the moderator factor affects the link between the independent factors and dependent factors. According to Wu, A. D. et al. (2007), moderators played a role as third variables, which appeared to enhance a higher in-depth knowledge level and a more clearly understood relationship between variables.

These reviewed research papers below use moderator variables such as religion, leadership style, and Brand Awareness to investigate the relationship between service quality and customer satisfaction.

2.5.2.1. The model of PC Ezech, TC Okeke, AD Nkamnebe (2021)

One of the fastest-growing hospitality sectors, Nigeria's hotel sector was the focus of this study (PricewaterhouseCoopers, 2017). These authors specifically sought to study how religious affiliation may operate as a moderator in the relationship between service quality and customer satisfaction. Muslim and Christianity are the two religions that are discussed in this study.

These authors decided to use five factors of the SERVQUAL model (Empathy, Assurance, Tangibles, Responsiveness, and Reliability) to explain the satisfaction of the hospitality industry. The study used a convenience sample of 400 hotel visitors, which included 200

from the two states of Anambra and Zamfara, who stayed at various levels of hotels. All types of hotels in the two states participated in the study, which lasted three months.

In the end, the findings indicated that religion significantly modifies the service quality aspects and customer satisfaction. In other words, there were differences in how Muslim and Christian hotel guests assessed satisfaction-related service quality metrics. Fundamentally, hotel management should be aware that both Christian and Muslim hotel guests do not share the same sources of satisfaction. The study also revealed that the most important determinants of guest satisfaction are the Empathy and Assurance components. As a result, hotel management would focus on providing training courses that will empower the staff to provide clients with higher customized services. Long-term visitor connections will be strengthened and nurtured as a result.

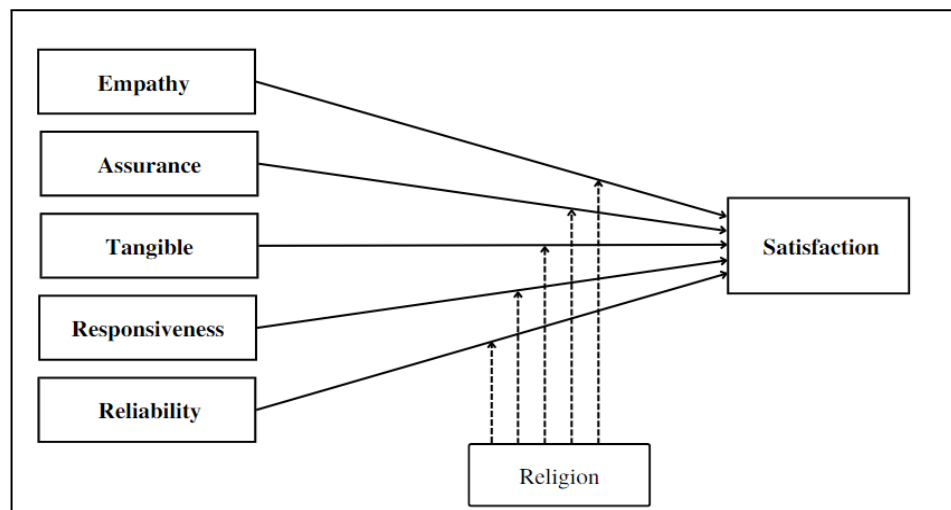


Figure 2.5: “Conceptual Framework with Hypotheses Development between Service Quality Dimensions and Customer Satisfaction (Religion is the moderate variable)”

2.5.2.2. The model of Pantouvakis, A., & Patsiouras, C. (2016)

In this paper, Pantouvakis, A., & Patsiouras, C. did research on the relationship between service quality and customer satisfaction. However, the sector selected was the courier service in Greece and leadership style has played a role as a moderating variable in this case. In particular, the research aimed at how leadership style in SME enterprises in Greece can affect the relationship between service quality and customer satisfaction.

Personal interviews were used as the data-gathering technique. Through in-person interviews, it was required that the executive at the firm in charge of quality concerns complete the questionnaire. Ultimately, 118 SME mail delivery companies were selected as the study's sample. Exploratory factors were used to better define the characteristics of leadership style, customer happiness, and service quality. Additionally, several linear regression studies were carried out to look at all the connections between the

aforementioned constructs (service quality, customer satisfaction, and leadership style). 45 of the 118 SME enterprises that responded to the questionnaires operated in Athens, while 73 others did so across all of Greece, making up respectively 38.1% and 61.9% of the sample.

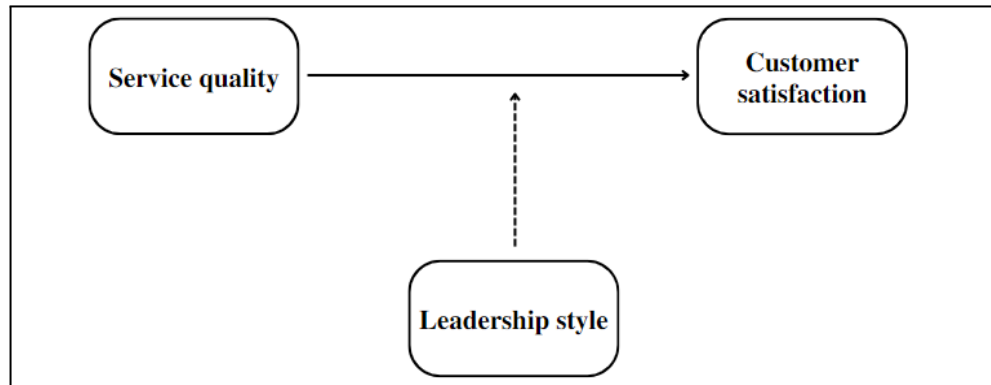


Figure 2.6: “Conceptual Framework with Hypotheses Development between Service Quality Dimensions and Customer Satisfaction (Leadership style is the moderate variable)”

The study's findings demonstrated that leadership style moderates the relationship between service quality and customer satisfaction, in contrast to earlier research that has demonstrated that leadership style supports service quality. The outcomes also showed how the services offered by the business to its clients and the circumstances of the engagement have an influence on customer satisfaction. The fact that the study was carried out in an uncertain business environment can help to explain this in part. The level of service can boost satisfaction only in the case of transformative leaders.

2.5.2.3. The model of Ping-Lung Huang, Bruce C.Y. Lee & Ching-Chin Chen (2019)

The main objective of this study is to determine how customer loyalty and satisfaction in the enterprise (B2B) technology service sector are influenced by service quality and brand recognition. The majority of this field's study is applicable to business-to-consumer settings, such those in the hotel business. Using a PZB model of customer satisfaction and loyalty, Ping-Lung Huang et al. develop a questionnaire and collect data from consumers.

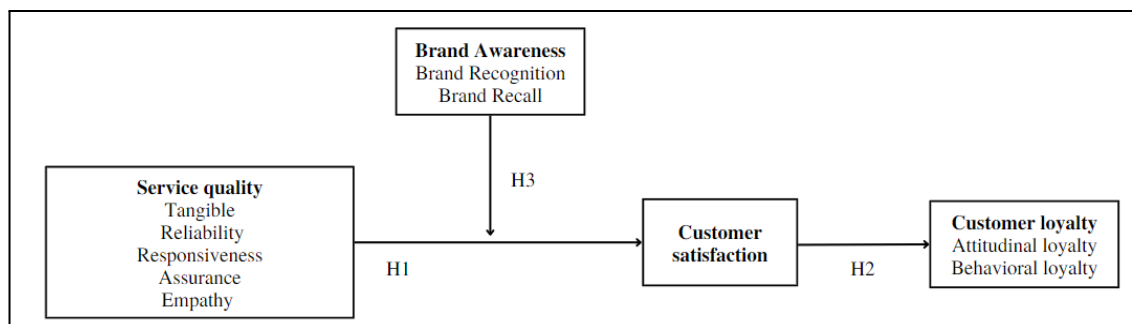


Figure 2.7: “Conceptual Framework with Hypotheses Development between Service Quality Dimensions and Customer Satisfaction and Customer Loyalty (Brand Awareness is the moderate variable)”

By email, postal mail, and in-person visits to key employees in charge of their company's equipment calibration, the authors collect 302 completed questionnaires. The study's findings indicate that (1) customer satisfaction positively impacts customer loyalty, (2) customer satisfaction positively influences customer satisfaction, and (3) brand awareness positively influences the relationship between service quality and customer satisfaction. These data demonstrate that customer satisfaction is strongly positively influenced by service quality, brand awareness, and the duration of their interactions.

The study's findings offer empirical support for a variety of hypotheses and conclusions. These insights may be used by managers in the B2B technology service industry to improve service quality and boost client happiness. This study demonstrates how the PZB model may be utilized in calibration labs to raise service quality, customer satisfaction, and customer loyalty. Furthermore, the current results may serve as a roadmap for next research in the B2B technology services industry.

2.5.3. Literature review summary table

Several papers have examined the factors affecting customer satisfaction on service quality, and some of the moderating factors were also being studied. We will summarize the literature in the following figure 2.8 to show the factors in each study.

No	Article	Authors	Factors	Moderating Factor
1	“Clients’ perception towards JAKIM service quality in Halal certification”	Badruldin et al., 2012	Tangibles, Reliability, Responsiveness, Assurance, Empathy	None
2	“Relationship between service quality and customer satisfaction during halal certificate application in Kelantan”	Setapa et al., 2020	Assurance, Empathy, Communication, Security	None
3	“Service quality and customer satisfaction: Halal certificate application in Malaysia”	Setapa et al., 2020	Tangibles, Reliability, Responsiveness	None
4	“Measuring Service Quality of Halal Certification in Indonesia Food Industry using Fuzzy-SERVQUAL Method for Service Quality Improvement”	Putri, H. M., Dachyar, M., & Nurcahyo, R. (2021)	Tangibles, Reliability, Responsiveness, Assurance, Empathy	None
5	“An SEM–artificial-neural-network analysis of the relationships between SERVPERF, customer satisfaction and loyalty among low-cost and full-service airline”	Leong et al., 2015	Tangibles, Reliability, Responsiveness, Assurance, Empathy	None
6	“Measuring Service Quality: A Reexamination and Extension”	Cronin & Taylor (1992)	Tangibles, Reliability, Responsiveness, Assurance, Empathy	None
7	“Moderating role of religion in the relationship between SERVQUAL dimensions and hotel guest satisfaction”	Ezeh, P. C., Okeke, T. C., & Nkamnebe, A. D. (2021)	Tangibles, Reliability, Responsiveness, Assurance, Empathy	Religion
8	“Exploring the role of Leadership Style on the Service Quality - Customer Satisfaction link: Evidence from a B2B environment”	Pantouvakis, A., & Patsiouras, C. (2016)	Services, Environment	Leadership style
9	“The influence of service quality on customer satisfaction and loyalty in B2B technology service industry”	Ping-Lung Huang, Bruce C.Y. Lee & Ching-Chin Chen (2019)	Tangibles, Reliability, Responsiveness, Assurance, Empathy	Brand Awareness (Brand recognition, Brand recall)

Figure 2.8: Literature review summary

2.6. Literature gap

Factors influencing customers’ satisfaction on service quality has always been an interesting topic for researchers. However, studies on the service quality of Halal certification are still occasional, with only a few famous studies, for example, Baizuri Badrudin et al., (2012) and Mariam Setapa et al., (2020). In addition, little previous research has examined the topic of Halal certification in Vietnam. Studies of Phuong, N.T.H (2012), Dat, T.Đ.X (2022), Lang, N.T (2022) mentioned Halal certification in their studies as one of the standards for exporting agricultural products. However, they did not

clearly explain Halal certification. Huynh, T.D. et al., (2022) carefully defined Halal, Haram and Halal certification in their study on Vietnam's Halal tourism. There is no prior study on service quality and customer satisfaction related to Halal certification, especially in the context of one agency in Vietnam.

Secondly, most previous studies have focused solely on the relationship between service quality dimensions and customer satisfaction without examining the possible third factors that might affect the relationship between them. Studies found moderators such as Brand Awareness, leadership styles, and religion. However, no previous research has examined the possible moderators for Halal certification bodies, to the authors' knowledge. This study will fill the gaps in the literature by examining the relationship between service quality and customer satisfaction in the context of HCAV. In addition, we also discuss Brand Awareness as a possible moderator.

2.7. Proposed research model and Hypothesis development

2.7.1. Factors affecting customer satisfaction on service quality

The factors that determine service quality have frequently been in dispute. An effort has been made over the past 40 years to thoroughly comprehend and classify service quality parameters. Grönroos (1984) defined "technical quality," "functional quality," and "corporate image" as the three characteristics of service quality. Functional quality refers to how the customers use the service or its technical quality, whereas technical quality refers to what the customers obtain from it. Technical quality may be evaluated objectively as a technical outcome, but functional quality will differ across clients, with each of them perceiving the performance of the service differently. For example, technical quality might be the accuracy and efficacy of diagnostics and medical treatments at a hospital, a hotel room's cleanliness, or the repair's effectiveness. The care and/or attitudes of the individuals involved in the delivery of service items, on the other hand, constitute functional quality (Lassar et al., 2000). Therefore, functional quality was viewed as much more subjective than technical quality. Corporate image is particularly essential to service organizations and is primarily determined by the service's technical and functional quality (Zaibaf et al., 2013; Yarimoglu, 2014). From another perspective, Parasuraman (1985) explored 10 dimensions of service quality, regardless of the type of service, including "Reliability", "Responsiveness", "Competence", "Access", "Courtesy", "Communication", "Credibility", "Security", "Understanding", and "Tangibles". Parasuraman et al., (1988) had grouped some of the dimensions together, and came up with a new five dimensions of service quality: "Tangibles", "Reliability", "Responsiveness", "Assurance" and "Empathy". However, Cronin & Taylor (1992) proposed a refined model and combined some of the original variables. It results in the famous SERVPERF model, which evaluates the service quality through the customer's perceived performance on five dimensions,

including Tangibles, Reliability, Responsiveness, Assurance, and Empathy. In this study, we posit that HCAV's service quality has a positive impact on its customer satisfaction.

Tangibles

Tangibles include physical proof of the service, such as physical facilities, equipment, staff appearance, and physical representations of the service (Parasuraman et al., 1985, Parasuraman et al., 1988). For a Halal certification agency, Tangibles may include additional elements such as detailed and comprehensive information regarding the application and certifying procedure (Badrudin et al., 2012), Yilmaz et al. (2018), Nguyen et al. (2018), Amiri et al. (2012), Leong et al. (2015), and Masrurul (2019) in their research demonstrates the significance of the Tangibles dimension and the significant relationship between Tangibles and Customer satisfaction.. Thus, we posit that Tangibles factors of HCAV will positively affect Customer satisfaction.

H1: HCAV's Tangibles positively affects exporting companies' satisfaction

Reliability

Reliability, in the words of Parasuraman et al. (1985), includes both dependability and performance consistency. It indicates that the company delivers on its commitments. According to Badrudin et al., (2012), Reliability of Halal certification agencies refers to the detailed information about the procedure of obtaining a Halal certificate. Customers like to do business with companies that fulfill their promises. Therefore, it plays a crucial part in the customer's sense of service quality and loyalty. Hence, customers' expectations must be considered by service providers (Ramya et al., 2019). Pakurár et al. (2019), and Parasuraman et al., (1988) found that reliability correlates with customer satisfaction. Setapa et al., (2020), Leong et al. (2015), Hamid et al. (2016) and Amiri et al. (2012) also found a significant effect of Reliability on Customer satisfaction. Thus, we posit that HCAV's Reliability will positively affect its customer satisfaction.

H2: HCAV's Reliability positively affects exporting companies' satisfaction

Responsiveness

In their attempts to entice additional nutrition business providers to apply for and engage in the Halal market, business providers, JAKIM, JAIN, the general public, and enforcement authorities must prioritize responsiveness (Setapa et al., 2020). This dimension is focused on the willingness, attitude, and timeliness with which customers express requests, inquiries, complaints, and difficulties. It also highlights the employees' or staff's punctuality, presence, professionalism, devotion, and so forth. It is determined by the amount of time clients wait for service, reply to inquiries, and so on. Responsiveness can be increased by regularly observing the service delivery and personnel processes (Ramya et al., 2019), while Badrudin et al., (2012) argue that this might be accomplished by promoting Halal certification and encouraging individuals who do not have it to obtain it. Thus, service quality may improve if service providers address customer issues correctly and respond quickly. Bungatan & Reynel (2021), Leong et al. (2015), and Amiri et al.

(2012) in their study found that Responsiveness has a significant impact on Customer satisfaction. Thus, we posit that HCAV's Responsiveness will positively affect its Customers' satisfaction.

H3: HCAV's Responsiveness positively affects exporting companies' satisfaction

Assurance

Assurance refers to the "knowledge and courtesy of employees and their ability to inspire trust and confidence" (Parasuraman et al., 1988). The viewpoints of researchers on the position of Assurance among service quality factors vary. According to Gronroos (1988), Assurance is placed first, whereas Parasuraman et al. (1994) placed it fourth. Assuring customers requires informing them in their own language and listening to them, regardless of educational level, age, or race. According to Parasuraman, assurance is related to workers' attitudes and actions, as well as the team's capacity to deliver delightful, polite, and professional services. Assurance indicates that customers believe the organization has ensured enough safety. To acquire clients' trust, a service provider must prove to them that they are professional, informed, transparent, and capable of providing the necessary information (Setapa et al., 2020). According to prior research, there is a considerable link between customer satisfaction and service assurance (Kassim et al., 2015; Arsanam & Yousapronpaiboon, 2014). Thus, we posit that HCAV's Assurance will positively affect its Customer satisfaction.

H4: HCAV's Assurance positively affects exporting companies' satisfaction

Empathy

Empathy, which has both cognitive and emotional components, is the capacity to recognize, interpret, and react to the thoughts, feelings, behaviors, and experiences of others (Murray et al., 2019). This dimension aims to convey the idea that customers are unique and special to the business by offering specialized or tailored services. Strong cognitive empathetic employees appear to be better capable of understanding customer needs (Homburg et al., 2009). On the other side, employees that have a high level of emotional empathy are more driven and able to communicate with consumers in a way that demonstrates personal concern, cooperation, and contentment. According to Parasuraman et al. (1988), the least significant component in banks, credit card companies, repair and maintenance enterprises, and long-distance telecommunications providers is empathy. However, Setapa (2020) discovered that empathy is one of the most important determinants of customer satisfaction at "Jabatan Hal Ehwal Agama Islam Kelantan" (JHEAIK), one of Malaysia's State Islamic Religious Departments in charge of granting a Halal certificate in Kelantan. According to Amiri et al. (2012), Setapa (2000), and Murad et al. (2019) studies, empathy is a critical factor in customer satisfaction. Thus, we posit that HCAV's Empathy will positively affect its Customer satisfaction.

H5: HCAV's Empathy positively affects exporting companies' satisfaction

2.7.2. Moderating variables

After carefully reviewing several common moderating variables which were used in aforementioned studies in part 2.5.2, these authors came to the decision of choosing Brand Awareness as a moderating variable in this research model. This selection is based on the following grounds.

First of all, according to Keller (2003), "Brand Awareness" is the sum of all descriptive and evaluative knowledge about a brand that has been stored in the memory of the consumer. Also, the capacity of customers to identify or recall a brand, including names, pictures, logos, and specific slogans that the business has used to promote their products, may be seen as Brand Awareness (Mashur et al., 2020). Understanding a product's brand is crucial for comparing the product's performance and its effects. Consumers have a set of expectations for brands, and these expectations have an impact on their purchase decisions, which determines their degree of satisfaction (Surucu et al., 2019). While businesses frequently view the Halal brand as a brand element that might help them gain market share, Muslim consumers view it as essential to their moral code and way of life (Wilson and Liu, 2010). In this context, quality refers to the expectation that Halal products will satisfy customers' demands, and Halal brand quality provides a foundation for consumers to connect with and identify with Halal products (Ali et al., 2017). Due to their adherence to a number of particular principles and practices, Halal products provide Muslim customers throughout the world with a means of choice; as a result, they continue to be a significant factor in influencing consumers' purchasing decisions.

Moreover, Keller (2008) suggested that strong brands improve the perceived performance of items since they can reduce the cost and effort associated with conducting a successful search and completing the purchase. A well-known brand lowers the information processing costs and burden for the customers and raises the perceived performance of the brand; as a result, the perceived benefits of the brand outweigh the perceived costs, and as a result, the perceived value increases. Because consumers will utilize these cues to infer extra information like product quality, they won't participate in additional information processes while making judgments (Tsao and Tseng, 2011). Likewise, this will enhance the general emotional well-being of clients. Popular brands can effectively decrease the customer perception of risk and increase the positive customer perception of their quality's product evaluations (Teas & Agarwal, 2000). When consumers see a brand which they are more (less) familiar with, they intend to have a stronger (weaker) brand attitude and a higher (lower) purchase intention (Kamins & Marks, 1991).

In light of the aforementioned, this study makes the claim that Brand Awareness influences the link between each factor and customer satisfaction in a favorable way:

H6a: Brand Awareness of HCAV positively moderates the relationship between Tangibles and exporting companies' satisfaction.

H6b: Brand Awareness of HCAV positively moderates the relationship between Reliability and exporting companies' satisfaction.

H6c: Brand Awareness of HCAV positively moderates the relationship between Responsiveness and exporting companies' satisfaction.

H6d: Brand Awareness of HCAV positively moderates the relationship between Assurance and exporting companies' satisfaction.

H6e: Brand Awareness of HCAV positively moderates the relationship between Empathy and exporting companies' satisfaction.

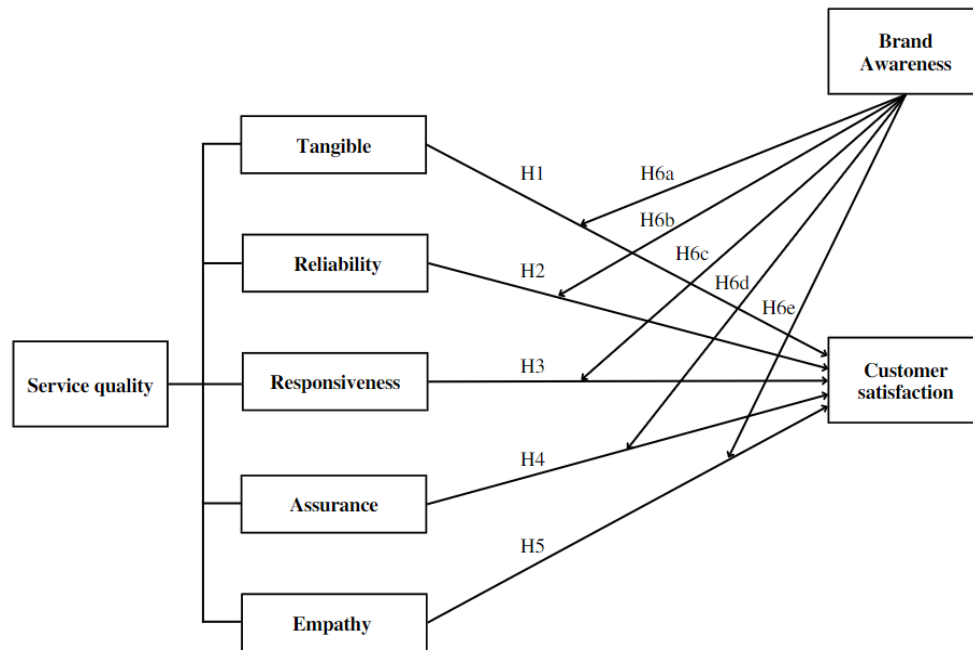
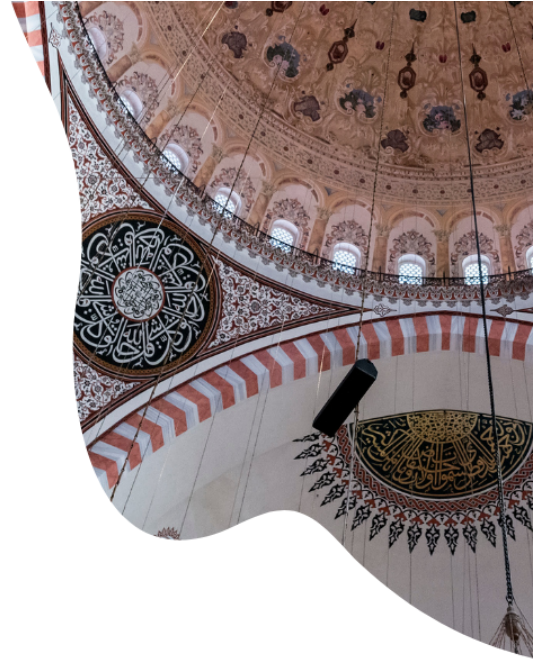


Figure 2.9: Proposed research model

2.8. Conclusion

In this chapter, our team focuses on reviewing basic theories about Halal & Halal certification, exporting & exporting companies, and service quality & customer satisfaction. This chapter also aims to review and assess other research related to this study, involving research non-using moderators and research using moderators. On the basis of the literature gap, the research team proposes a research model and develops hypotheses.



CHAPTER 03



This chapter briefly discusses the research philosophy and ethical considerations, as well as how the research process has been done. The choice of data collection and analysis methods is also mentioned and explained.

Chapter 3: Methodology

3.1. Introduction

3.1.1. Research philosophy

"Research philosophy" is a word used to define a collection of assumptions and attitudes about the expansion of knowledge. Research philosophy looks at the history, structure, and development of knowledge. A research philosophy is simply a viewpoint on how data should be obtained, analyzed, and used (Bajpai, 2011). Practical ramifications influence which research philosophy is chosen. Recently, there are five main research philosophies that are relevant to business and management: positivism, critical realism, interpretivism, postmodernism, and pragmatism.

Positivism refers to the philosophical approach of a natural scientist, which advocates the use of observable social reality to produce generalizations that resemble rules. Positivist researchers will probably use a very regimented technique to make replication easier (Gill & Johnson, 2010). Additionally, measurable observations that are amenable to statistical analysis will be the focus.

Critical realism is a school of philosophy that seeks to explain what we perceive and experience in terms of the underlying processes that shape reality. For critical realists, reality is the most important philosophical issue, and an ordered, multi-layered ontology is crucial (Fleetwood, 2005). Although reality is external and independent, critical realists contend that it cannot be directly witnessed or known.

Similar to critical realism, **interpretivism** arose as a subjectivist critique of positivism. Since people create meaning, interpretivism stresses the distinction between humans and physical events. The objective of interpretivist research is to provide novel, in-depth viewpoints on social contexts and environments.

Postmodernism emphasizes language's role in power relations in an effort to question accepted knowledge and give voice to opposing, alternative ideas. Postmodernist scholars highlight and challenge the power mechanisms that support prevailing realities (Calás & Smircich, 2019). In its place, they reject the modern objectivist, realist ontology of objects and highlight the chaotic dominance of flux, movement, fluidity, and change.

According to **pragmatism**, ideas are only valuable when they help others take action (Kelemen & Rumens, 2008). Pragmatism emphasizes the significance of dealing with actual cases as well as the particularities needed for creating analytical techniques and formulating hypotheses (Bertilsson, 2004). By including the need to address spatial

challenges in an inter- and trans-disciplinary manner into its process, pragmatic viewpoint illuminates the possibilities and richness of research-by-design.

Both a formal study design and a more grounded research methodology can be justified by pragmatism. The pragmatic justification for mixed methods research has proven to be an excellent tool for going beyond summarizing the status quo and testing a specific hypothesis. As applying pragmatism's reasoning enables researchers to use a valuable source of data, the scribbled, spontaneous comments, the philosophy of this research is pragmatism.

3.1.2. Research process

The framework that encompasses all of the tasks carried out by the researcher from the start of the study to its conclusion is known as the research design or process (Bell et al., 2022). Nonetheless, no specific research design works well for every study; hence, researchers should come up with a method that suits their project (Sekaran & Bougie, 2016). According to Binaymin S. (2019), the research process can be defined as nine steps below:

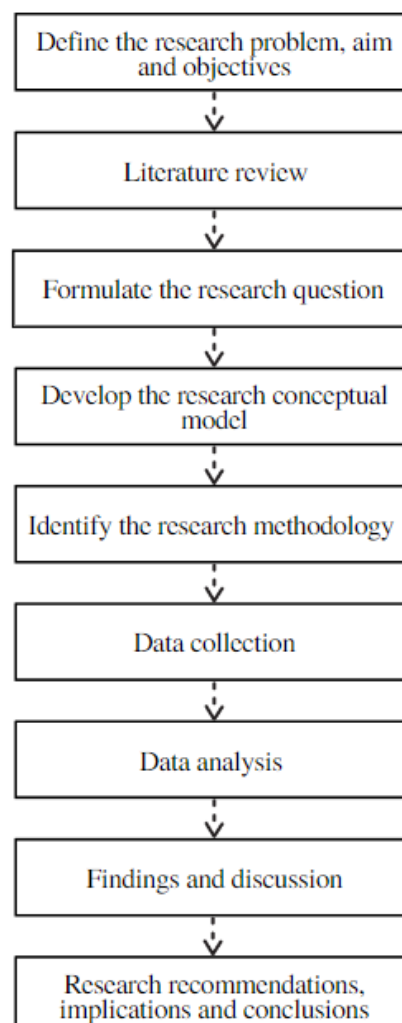


Figure 3.1: Nine steps of research process, Binaymin S. (2019)

Step 1: Define the research problem, aim and objectives

In this research, the authors strongly emphasize the evaluation of the customers' satisfaction with the Halal Certification Agency Vietnam service quality.

Step 2: Literature review

In this step, the previous studies in terms of service quality and customer satisfaction in Halal certification service and others have been carefully reviewed. In short, there are five factors that will be used to analyze: Tangibles, Reliability, Responsiveness, Assurance, and Empathy. Also, Brand Awareness is applied as a moderating factor that modifies the relationship between service quality and customer satisfaction.

Step 3: Formulate the research question

There are two questions that have been formed to pursue this topic:

RQ1: What are the factors that influence exporting companies' satisfaction on HCAV's service quality and the extent of it?

RQ2: What are the possible recommendations and implications for HCAV to improve its service quality and enhance its customer satisfaction?

Step 4: Develop the research conceptual model

In the fourth step, these authors focus on assessing several models that are closely related to the topic. Afterward, authors defined the most suitable one as the SERVPERF model with five dimensions: Tangibles, Reliability, Responsiveness, Assurance, and Empathy.

Step 5: Identify the research methodology

Next, the authors mixed quantitative and qualitative methodologies to offer a fuller and more thorough knowledge of the research information and data list.

Step 6: Data collection

To pursue the research paper, the authors have collected primary data through two main methods: an in-depth interview and an email survey.

In the first part, exclusive face-to-face, in-depth interviews with experts both in HCAV and Vietnam's exporting companies have been conducted. Beforehand, the proposed research model and questionnaire for the survey will be shown to experts. These experts, with their long working experience and deep, extensive knowledge, will assess and give recommendations on these five factors affecting customer satisfaction and suggest modifying (adding or removing) any dimensions if necessary.

Next, primary data has been collected from email surveys. The first and foremost objective of email surveys is HCAV's corporate client file (exporting companies). These authors sent an email survey to each exporting enterprise and expected to receive 300 answers. In particular, the authors conducted email surveys that include 34 questions which were

formatted by Microsoft Forms. These questions are categorized into four groups which are correspondent to service quality, customer satisfaction, Brand Awareness, and demographics.

Besides, the secondary data also contributed to this study. These data have been taken from reputable and reliable research sources. In this research, the authors collected information from common sources such as government websites, monthly/ annual reports of government departments, other studies related to this topic, etc.

Step 7: Data analysis

In this step, the authors decided to analyze the collected data through five methods: Descriptive analysis, Reliability analysis, Exploratory factor analysis, Correlation coefficient analysis, Regression analysis, and Moderated multiple regression analysis

Step 8: Findings and discussion

Step 9: Research recommendations, implications, and conclusions

3.1.3. Research approaches

The term "research approach" refers to the strategies and methods for doing research, which include anything from broad hypotheses to particular methodologies for acquiring, analyzing, and interpreting data. The notion of research methodology is used throughout the entire research process. The audience for the research study, the research purpose, and the researcher's experience are just a few of the numerous variables that go into choosing a research approach. As a result, the main decision is which method should be employed to study a subject.

There are three sorts of research approaches: deductive, inductive, and abductive. In light of these three ways for constructing theories, researchers employ a deductive approach when developing a research strategy to test an existing hypothesis. Reading scholarly literature is a common way to get to this notion. In contrast, researchers use an inductive approach when they collect evidence to analyze a phenomena and then generate or formulate a theory (typically in the form of a conceptual framework). When researchers gather data to explore a phenomena, discover themes, and explain patterns in order to build a new or revise an existing hypothesis that is subsequently evaluated by more data gathering, they utilize an abductive approach.

The deductive approach seeks to develop a hypothesis based on an existing theory, followed by the development of a research strategy to test the hypothesis. The deductive approach may be described using hypotheses drawn from the claims of the theory. To put it another way, the deductive approach is concerned with reaching conclusions based on premises or claims.

Inductive approach, also known as the inductive approach, begins with observations, and theories are then proposed as a result of the research process and its findings. When conducting inductive research, patterns are first sought out through observation, followed by a sequence of hypotheses that are used to build explanations or theories for those patterns.

The inadequacies of the deductive and inductive techniques are expected to be fixed by the abductive approach. The argument for deductive reasoning is made explicitly in light of the difficulty in determining which theory to test by way of constructing hypotheses. On the other hand, inductive reasoning is defended since no amount of empirical data can guarantee the development of a theory. Abductive reasoning, the third choice, addresses these issues by adopting a practical perspective.

The following benefits are provided by the deductive approach: the possibility of describing causal linkages between concepts and variables, and the possibility of quantitatively measuring concepts potential for generalizing study results to some extent. Because of these above standing out characteristics, researchers shall apply the deductive approach to define the factors affecting exporting companies' satisfaction on Halal certification service quality of HCAV.

3.1.4. Research methods

When assessing available resources for completing an evaluation, an evaluator must grasp a method (Greene, 2007). This not only determines what may be examined within reason, but it also influences how an assessment process is built (Jones et al., 2019). Using incorrect procedures may result in major constraints on what can be understood from the results. Quantitative techniques appear to be in high demand, maybe due to the notion that surveys are quick and simple to create. In reality, most assessments and research experts will argue that utilizing a survey or questionnaire does not automatically make the results legitimate (Jones et al., 2019).

Method (Resource required)	Advantages	Disadvantages
Surveys/ Questionnaires (Low)	<ul style="list-style-type: none"> • Low cost to administer • Capable of collecting vast quantities of data • Easy to assess quantitative data statistically • Reliable and reliable measurements may already exist • Pre- and posttests provide stronger proof of 	<ul style="list-style-type: none"> • Inability to capture the complete narrative • Bias responses • Prone to misinterpretation • Time-consuming tracking and contacting respondents for follow-up

	program performance than other techniques • Follow-up posttests give vital information on medium and long-term effects	• It may be difficult for respondents to recall how they thought/behaved before to the program when using retrospective pre- and posttest designs
Surveillance data (Moderate-High)	• Increased awareness of possible risks • Increased ability to obtain precise information • Could be more representative	• High cost • Labor intensity • Hard to sustain long-term • Risk of information misuse
Record reviews (Moderate)	• Extensive and historical information provided • There is little disturbance to the program or activities • Easily accessible information	• Time-consuming • Likely to have incomplete information • Data are limited to what already presents • It is necessary to be explicit about what data is being sought ahead of time

Note: Adapted from Jones et al., 2019

Table 3.1: Required Resources, Advantages, and Challenges of Quantitative Methods

Qualitative methods cannot be used to merely aggregate or convert data into numbers. To put it another way, a qualitative method user needs to be adept at creating interpretations in order to not only provide thorough accounts of complex events but also to build themes or conceptual frameworks and produce hypotheses (Jones et al., 2019). You might be able to learn more about participants' experiences, feelings toward a program, and its advantages by using qualitative data. The most common techniques for obtaining qualitative data are focus groups, observation, interviews, and case studies.

Method (Required Resources)	Advantages	Disadvantages
Focus groups (Moderate)	• Participants define what is significant • Probes are used to clarify responses • It is less expensive and more efficient than interviews • It allows for instant sharing and synthesis	• Requires competent organizers • Lack of privacy • May be difficult to evaluate • Members of the group and organizers may bias responses • Data collection and analysis takes time
Observation (High)	• Capable of adapting to events as they occur • Natural, dynamic, and unstructured setting • Allows researcher to select engagement level (i.e., proactively engage vs passively observe)	• It can be difficult to understand observed behaviors • The presence of a researcher may influence participant behaviors • It is challenging to generalize findings to the entire population • It takes time to train observers.

Interviews (Moderate-High)	<ul style="list-style-type: none"> • More individualized approach • Easier to ask open-ended questions, investigate, and pick up on nonverbal indications • Questionnaire can be adapted to the interviewees 	<ul style="list-style-type: none"> • Difficult to schedule • Skilled interviewers required • Results may be difficult to evaluate and summarize
Case Study (High)	<ul style="list-style-type: none"> • Can collect rich details • Aids in the detection of unexpected outcomes • Can aid in the generation of new hypotheses 	<ul style="list-style-type: none"> • Time-consuming to acquire, arrange and describe • Provides information's depth, rather than breadth • Data cannot always be generalized to the larger population • Hard to determine causal effect

Note: Adapted from Jones et al., 2019

Table 3.2: Required Resources, Advantages, and Challenges of Qualitative Methods

However, there are occasions when combining quantitative and qualitative techniques can provide a fuller and more in-depth understanding of a program's or project's outcomes. The evaluator can blend quantitative and qualitative research methodologies in a study using this mixed methods approach. In this study, the authors choose to combine different methodologies.

3.2. Measurement scale

Before collecting data, the measuring scale and variable items will be developed and measured using credible sources. Because this study's background is in Vietnam, the items will be translated into Vietnamese using a back translation approach. We adopt a Likert scale from 1 (strongly disagree) to 5 (strongly agree) for the measuring scale. Cronbach's Alpha reliability index will be used to assess the reliability of each scale. A Cronbach's Alpha index greater than 0.7 indicates a reliable measuring scale (Hodge & Gillespie, 2003).

3.2.1. Service quality

To measure service quality, we measure each of the five dimensions: Tangibles, Reliability, Responsiveness, Assurance, and Empathy. Parasuraman et al. (1985, 1988) proposed the famous gap SERVQUAL model to measure service quality. In SERVQUAL, Parasuraman et al. used a 44-item scale to measure the gap between perceived service quality and customers' expectations. However, the scale has been criticized by many other researchers. Cronin & Taylor (1992) stated that SERVQUAL is confusing. They proposed a measurement scale for service quality based on the previous SERVQUAL items and called the new scale SERVPERF, which only measures the customer's perceived service

performance. Recently, studies on service quality and customer satisfaction also use the factors in the SERVQUAL model but only use the SERVPERF scale (Leong et al., 2015; Sohail & Hasan, 2021; Rasyida et al., 2016). In the context of Halal certification bodies, Putri et al. (2021) proposed a 25-item questionnaire to measure service quality. They took the items from the SERVQUAL scale and modified them after interviewing the experts. In this study, we will use the 25-item questionnaire of Putri et al. (2021) to measure customers' perception on HCAV service quality factors.

3.2.2. Customer satisfaction

In this study, the target respondents are exporting companies in Vietnam. Thus, we applied a four-item questionnaire from Molinari et al. (2008), which measures Customer Satisfaction in a business-to-business context.

3.2.3. Brand Awareness

By using the following metrics, we gauge brand awareness: Six questions make up the measurement scale that Huang et al. (2019) separated brand awareness into two components: brand recognition and brand recall. Additionally, each item on the measurement scales in this study is measured using a five-point Likert-type scale.

3.3. Data sources & collection method

3.3.1. Data sources

3.3.1.1. Primary data

Primary data are those that have not yet been made public, are being gathered for the first time, and are being gathered by the researcher himself. In reality, researchers must conduct surveys and gather primary data when secondary data cannot satisfy the needs of the research or when acceptable secondary data cannot be located. The data that must be gathered often consists of details on how the client is now using the product, what they anticipate using it for in the future, how they rate the product's features and related services, etc. Primary data collection, however, frequently takes a lot of time and money because it also requires that the data be obtained through the real study process.

3.3.1.2. Secondary data

Secondary data refers to data that is already accessible, has not been independently gathered, and has been extensively disseminated, making it simple, inexpensive, and quick to gather. It seems to make sense that we would use secondary data that was gathered by others for other goals for our own study. One piece of data may serve as secondary information for one research while serving as primary information for another. When the data is used again, it is done so as main data for the first research and secondary data for the second study.

3.3.2. Data collection method

3.3.2.1. In-depth Interviews

In this study, we used qualitative methods to understand how experts in the industry assessed our factors, our proposed model, and the questionnaire. In addition, we could gain valuable insights regarding the reality of Halal certification services. With that purpose, we choose to use the In-depth interview method, as it has the advantage of a personalized approach, hence it would be more insightful with target interviewees being experts in the industry (Jones et al., 2019). In-depth interviews are a type of qualitative research technique that involves asking a select group of participants detailed personal questions. Respondents give their opinions on a certain concept, plan, or circumstance. For example, a marketer might ask a participant about their personal experience participating in an activity, review the process and organization, suggest changes, etc. Because qualitative data collection and processing are resource-intensive, sample sizes are often significantly lower than in normal surveys; they are also more likely to be built 'purposefully' rather than picked randomly from a sample frame (Starr, 2014). Some factors will influence the sample size of a case study. One component is the study subject, and another is the accessibility of possible interviewers and resources that may be crucial. Finally, another context factor is the availability of possible interviewers. When planning expert interviews, the number of specialists in the subject may be relatively restricted, making it difficult to conceive of more than 10 interviews (Baker & Edwards, 2012). Glaser and Strauss (1967) developed the notion of data saturation in qualitative data, which may be defined as the moment at which "no new data are being obtained whereby the researcher can develop attributes of the category." However, Starr (2014) suggests that the sample size itself is not the central issue but rather the strength of the in-depth interview, the information and deep understanding of the topic, and the insights generated. Nevertheless, it is critical to understand the rationale for picking who to interview or what instances to examine and why they should be regarded as reasonably typical members of the groups of interest. In this study, interviewees are experts from HCAV and exporting companies with years of industry experience.

The in-depth interview was conducted with 7 experts from both HCAV and exporting companies. The experts have years of experience working in exporting to the Islamic market. After conducting the interview, the experts provided feedback and insights related to the main topic. The first question was, *"There are five factors of service quality: Tangibles, Reliability, Responsiveness, Assurance, and Empathy. Do you agree with these factors? Do you suggest any other factors besides ours? Why?"*. The interviewees all agreed with the five factors, as they cover all aspects of service quality. In the second question, *"In five factors of service quality (Tangibles, Reliability, Responsiveness,*

Assurance, Empathy), in your opinion, what is the most/least important factor that affects customer satisfaction? Why?’’ The experts give different answers. Three experts argued that the Reliability factor is the most important regarding the value of the Halal certification provided to customers “*If the Halal certification provided by HCAV has no value to the exporting companies, nothing else will matter*”. Two experts argued that Assurance is the most crucial factor, as HCAV is “*always strict regarding employees’ knowledge about Halal, Haram, Sharia law, and the security provided to its customers*”. Two other experts suggested that Responsiveness will mostly affect customer satisfaction, as “*HCAV is always responsive and ready to customers’ requests*”. Overall, 3/7 experts suggest that Reliability is the most important factor, 2/7 suggest that Responsiveness is the most important, and the other two suggest that Assurance should be the dominant factor.

Besides the five service quality factors, our research also considers the moderating effect of Brand Awareness. When discussing the “Brand Awareness” factor, all of the experts agree that it could be a possible moderator for the model. Two experts commented that “*When talking about Halal certification agencies in Vietnam, HCAV will mostly be mentioned*”. To explain this quote, one expert revealed that “*HCAV is the only agency in Vietnam that achieved international recognition from JAKIM (Malaysia), GCC Accreditation Center (GAC), ESMA (UAE), MUIS (Singapore), CICOT (Thailand), KFDA (Korea). When service is provided to customers, they are likely to introduce HCAV to other businesses, which raises the Brand Awareness of HCAV*”. Three experts agreed that “*When customers see the HCAV’s logo, they will feel more secure, which will likely lead to more satisfaction with HCAV’s service*”. Thus, Brand Awareness is a possible moderating factor.

Regarding the measurement scale, the experts also gave some recommendations. Firstly, when discussing the “Tangibles” factor, all the experts commented that “*HCAV’s customers cannot evaluate the physical aspects of Tangible factors, due to the specifics of HCAV’s procedure, most of the work is done through email or phone call*”. It means that the customers of HCAV rarely come to HCAV’s office, and they feel hesitant and unclear to assess the physical facilities of HCAV. Therefore, two experts suggested that we should delete two items about physical facilities and add items about HCAV’s staffs: “*Instead of physical facilities, the Tangibles factor, in this case, could be the appearance and the attitude of HCAV’s staff*”. Thus, we decided to delete two original items: “*Physical facilities at the Halal Certification Agency office such as waiting rooms, toilets, lactation rooms, air conditioning and other physical facilities have a good appearance*”, and “*Availability and adequacy of facilities such as waiting rooms, toilets, lactation rooms, air conditioning, canteens and other physical facilities*”, and replace them by adding two items: “*HCAV staff have a neat attire and clean appearance*”, and “*HCAV staff have a professional attitude*”.

In addition, when looking at the measurement scales, the experts commented that the “Reliability” factor items have some unclear expressions. Initially, there are two items, R1: “HCAV has a service with a high level of accuracy, without any errors”, and R2: “HCAV is committed to customers”. Two experts explained that the most important thing in the process of providing a Halal certification is the value of its certification to the customers: *“If the Halal certification provided is not usable for the particular market that a customer wants to export to, then the service provided is basically meaningless.”*. The problem here is not with the accuracy of the service but with the value of the Halal certification provided by HCAV. An expert said *“Maybe it would be more realistic if you evaluated whether or not the service provided meets the customers’ needs.”*. Two experts suggested that the R2 items should be rephrased and mention the value of the Halal certification provided. With the comments of the experts, we decided to change R1 from *“HCAV has a service with a high level of accuracy, without any errors”* to *“HCAV can provide services that exactly meet customers’ needs”*, and R2 from *“HCAV is committed to customers”* to *“HCAV is committed to customers in terms of the value of Halal certification provided”*.

All of the experts agreed with the rest of the questionnaire. The final measurement items will be shown in Figure 3.2. In addition, the experts also shared more information about their businesses. All of the steps in the Halal certification process require hard work and precision. Sometimes HCAV’s services dissatisfied customers, mainly because of slow responses, lack of communication skills that sometimes make information unclear, and staff attitude problems. However, this rarely happens, and when it occurs, top managers of HCAV will quickly respond to learn from it, and learn from the mistakes. As a result, all of the experts agreed with the fact that HCAV’s service is getting better and better.

Service quality				
No	Dimension	Question	Code	Source
1	Tangibles	"HCAV has facilities and equipment with the latest technology"	T1	Putri, H. M., Dachyar, M., & Nurcahyo, R. (2021)
2	Tangibles	"Physical facilities at the HCAV office are clean and comfortable"	T2	
3	Tangibles	"HCAV has information media such as information counters, instructions, info boxes, information monitors, brochures, suggestion boxes, and others"	T3	
4	Tangibles	"HCAV staff have a neat attire and clean appearance"	T4	
5	Tangibles	"HCAV staff have a professional attitude"	T5	Qualitative results
6	Reliability	"HCAV can provide service that exactly meet customers' need"	R1	
7	Reliability	"HCAV is committed to customers in terms of the value of Halal certification provided"	R2	
8	Reliability	"HCAV is able to issue Halal certification at the promised time"	R3	
9	Reliability	"HCAV can solve problems experienced by customers"	R4	Putri, H. M., Dachyar, M., & Nurcahyo, R. (2021)
10	Reliability	"HCAV is a reliable agency"	R5	
11	Reliability	"The cost of Halal certification issued by HCAV is within a reasonable range"	R6	
12	Responsiveness	"HCAV can provide fast response to customer requests"	RS1	
13	Responsiveness	"HCAV is always willing to provide assistance to customers"	RS2	
14	Responsiveness	"HCAV informs customers about service availability"	RS3	
15	Responsiveness	"HCAV provides assurance to customers regarding the service time of Halal certification"	RS4	
16	Responsiveness	"The speed of the Halal certification service officer in facing the request of the applicant"	RS5	
17	Assurance	"HCAV employees have extensive knowledge of the services provided"	A1	
18	Assurance	"HCAV employees behave politely towards their customers"	A2	
19	Assurance	"Information regarding customer data is kept confidential and securely stored by HCAV"	A3	
20	Assurance	"HCAV provides a sense of security and comfort to its customers during the Halal certification process"	A4	
21	Assurance	"HCAV is always ready to serve customers when needed"	A5	
22	Empathy	"HCAV understands and can provide services for special / specific needs desired by customers"	E1	
23	Empathy	"HCAV employees respect and treat their customers well"	E2	
24	Empathy	"HCAV cares about the problems experienced by its customers and tries to understand the customers"	E3	

Customer satisfaction				
No	Dimension	Question	Code	Source
1	Customer satisfaction	“The service provided was of superior quality”	CS1	Molinari , L. K., Abratt, R., & Dion, P. (2008)
2	Customer satisfaction	“The service provided was excellent”	CS2	
3	Customer satisfaction	“My experience was as good as it was supposed to be”	CS3	
4	Customer satisfaction	“The service was done right the first time”	CS4	
Brand Awareness				
No	Dimension	Question	Code	Source
1	Brand Awareness	“Among many Halal certification agencies, when compared, you will prioritize to consider HCAV”	B1	Ping-Lung Huang, Bruce C.Y. Lee & Ching-Chin Chen (2019)
2	Brand Awareness	“HCAV service office is more than other agencies/companies”	B2	
3	Brand Awareness	“HCAV service market share is more than other agencies/companies”	B3	
4	Brand Awareness	“You are familiar with HCAV”	B4	
5	Brand Awareness	“When you think about the Halal certification service in Vietnam, you will first think of HCAV”	B5	
6	Brand Awareness	“Halal Certification Agency Vietnam, the name of HCAV is easy to remember”	B6	

Figure 3.2: Final questionnaire

3.3.2.2. Survey (Questionnaires)

Survey is a technique for gathering information for study using questionnaires. The survey approach is theoretically applicable to both qualitative and quantitative research. In reality, quantitative research methodologies frequently employ the survey method to gather data on a broad scale. This approach of gathering primary data is quite typical in management research.

Design Questionnaires

According to Taherdoost (2022), there are 7 steps to developing a questionnaire: Identify research objectives, Confirm type of survey, Type of questions, Develop question, Organize, Pre-test and Finalize questionnaire.

Part 1: Included is questions designed to elicit information about interviewees as well as general business knowledge.

Part 2: Contain questions for assessment of exporting companies on factors affecting their satisfaction on Halal certification service quality.

Part 1 of the questionnaire will contain 9 items. Part 2 of the questionnaire will contain 34 items, covering 7 groups of factors. The proposed research model's evaluation of the items that influence exporters' satisfaction with the quality of Halal certification services includes 24 observable variables to measure five components of service quality: Tangibles, Reliability, Responsiveness, Assurance and Empathy. The six observable items (from B1 to B6) are used to measure Brand Awareness of HCAV (moderate variable). The remaining four variables are used to measure customer satisfaction when companies using HCAV's service. This measurement is based on a five-point Likert scale corresponding to 1 = Strongly disagree, 2 = Disagree, 3 = Normal, 4 = Agree, 5 = Strongly agree.

Sampling Method

Taherdoost (2016) states that there are two main categories of sampling techniques: Probability and Non-probability.

By definition, probability sampling gives every component of the population an equal chance of being selected for the sample. He advocates using a computer program that generates random numbers to select samples from a sampling frame after researchers have first created a sampling frame (Zikmund, 2000). Although it can be the most time- and energy-consuming, this strategy minimizes the impacts of prejudice.

Non-probability sampling is frequently related to qualitative research and case study design (Yin, 2003). The sample of participants or cases need not be random or representative, but there should be a good reason why some cases or people should be included over others.

Sample Size

Sample size is determined by the analytical approach; in this study, exploratory factor analysis was applied (EFA). Factor analysis is a cyclical process of continuously developing and comparing possibilities until the best meaningful answer is reached, which increases the study's complexity. Exploratory factor analysis would reduce the data to fewer dimensions by examining the correlations between all variables (factors). The dimensions discovered using factor analysis can subsequently be used as data for other analyses, such multiple regression. Each item on a dimension in the organizational commitment example might be added to generate an aggregate item, which could then be regressed on a dependent variable like turnover (Hooper, 2012).

First, Tabachnick & Fidell (2007) claim that the sample size for multivariate regression models is calculated according to the formula: $N \geq 50 + 8p$.

Inside:

Next, according to Hair et al. (1998), the minimum sample size is 5 times the total observed variable: $N=5*m$

Inside:

- N is the sample size.
- m is the number of measurement variables participating in EFA.

Applied to the model and questionnaire, the minimum sample size will be $5*34 = 170$.

If a research paper uses a combination of formulas, the largest sample size required among the methods will be taken. Applied to the model in this research, the required sample size should be 170 or more.

Data collection

Data for the research were obtained through a mail survey, with the following target sample:

- Type of survey: Indirect survey (through Microsoft Form).
- Respondent: Exporting companies in Vietnam.
- Targeted respondent: Exporting companies in Vietnam that use the Halal certification service at HCAV.

For mail surveys:

- Information of export enterprises is found on online websites such as Yellow Page, companies' websites, then these enterprises are sent a survey via email.
- Questionnaire format: Questionnaires sent to companies through an online survey created by Microsoft Forms.
- Time period: The survey was sent on 16 October 2022. A reminder was sent to companies on 20 November 2022.

Following the data collection, it will be handled by SPSS software version 26.

3.4. Data analysis method

3.4.1. Descriptive analysis

Descriptive studies look at a population's characteristics, pinpoint issues within a unit, organization, or group, or look into variances in characteristics. Computing power has increased as descriptive approaches have evolved over time, allowing researchers to combine multiple data analysis methods. As a result, sophisticated modeling approaches and multivariate analysis, such as response surface methodology, principal component analysis, and preference mapping, have evolved and become more widely used (Siedlecki, 2020). For descriptive designs using observation or survey, the data are described (a) individual or group narratives, (b) the circumstances or contextual facts that support the story, (c) the relationship between the individual (Edmonds & Kennedy, 2016) Those will

be measured by measures of central tendency (mean, median, mode, standard deviation) and/or reported as frequencies and percentages.

3.4.2. Reliability analysis

When evaluating a measuring scale, validity and reliability are two essential factors to take into account. Validity is how well an instrument measures what it's supposed to. Reliability is all about an instrument's ability to measure consistently. It should be emphasized that an instrument's validity and reliability are strongly related. A valid instrument is one that is trustworthy (Tavakol & Dennick, 2011). There are three famous types of reliability tests for a measurement scale: (a) test-retest reliability (i.e., administering a test twice and calculating their correlation), (b) equivalent (or parallel) forms reliability (i.e., administering two forms of a test and calculating their correlation), and (c) internal consistency reliability (i.e., using only one test at only one time). Internal consistency is the simplest logistically since it does not need conducting the assessment twice or having two versions of the questionnaire (Brown, 2002). The most generally used measurement of the reliability of a scale is Cronbach's α (Streiner, 2003). Alpha was invented by Lee Cronbach in 1951 (Cronbach, 1951) to quantify the internal consistency of a questionnaire or measurement scale, a number between 0 and 1. The closer a questionnaire item's Cronbach's alpha is near 1, the better its reliability. In exploratory research, the accepted threshold is reduced to 0.6 from the usually recognized minimum of 0.7. The Cronbach Alpha Reliability is classified as follows: Very low ($\alpha \leq 0.30$); Low ($0.30 < \alpha \leq 0.60$); Moderate ($0.60 < \alpha \leq 0.75$); High ($0.75 < \alpha \leq 0.90$) and Very high ($\alpha > 0.90$) (Gottens, 2018). When the precision of a measurement is crucial, whether for scientific or practical reasons, the investigator must determine the extent to which random error impacts the measurement (Cronbach & Shavelson, 2004). Estimates of reliability reveal the level of measurement error in a test. Simply put, this meaning of reliability refers to the items' correlation with itself. The measurement error index is calculated by squaring this correlation and subtracting it from 1.00 (e.g. a scale has Cronbach's Alpha of 0.7 will have a 0.51 random error in the scores, because $1 - 0.7^2 = 0.51$). As the reliability estimate grows, the percentage of an item score due to error will decrease (Tavakol & Dennick, 2011).

3.4.3. Exploratory factor analysis

Exploratory factor analysis (EFA) discovers patterns in a set of variables by using mathematical approaches for the reduction of interrelated measurements (Yong & Pearce, 2013). It is based on the idea of diminishing dimensionality, which states that measurable and observable variables may be reduced to fewer variables with a similar variance but are unobservable. EFA is used when a researcher wants to count the variables that influence them and determine which variables go together. One of the EFA functions is to refine the

instrument's scales for use in hypothesis testing (Conway & Huffcutt, 2003), which is what we did in our study with our EFA analysis.

For a suitable EFA analysis, there are certain initial conditions. First, the KMO (Kaiser-Meyer-Olkin) value must be larger than 0.5, and the Barlett's test significance must be less than 0.05 (Tabachnick & Fidell, 2007). Items with factor loadings less than 0.5 will be eliminated since they indicate a very weak correlation between the items and the factors. In addition, unrotated factors are unclear, hence the factors are rotated to improve understanding. The objective of rotation is to achieve an optimally simple structure in which each variable loads on as few components as feasible, while the number of high loadings on each variable is maximized (Yong & Pearce, 2013). There are prerequisites for a proper EFA analysis.

3.4.4. Correlation coefficient analysis

Correlation coefficient analysis is a popular statistical tool for determining the link between two factors (Taylor, 1990). The link (or correlation) between the two factors is symbolized by the letter "r" and defined by a value ranging from -1 to +1. A correlation of zero indicates no relationship, whereas a correlation of one indicates a full relationship. If the correlation r for two components X and Y equals 1, it means that X and Y will increase/decrease in the same way. The sign of the r indicates the direction of the association. A negative r shows a negative correlation between the factors, with one factor increasing as the other decreases. Correlation strength rises from 0 to +1 and from 0 to 1 (Akoglu, 2018). If two factors have high correlation with each other ($r > 0.8$), it might raise the problem of possible multicollinearity (Shrestha, 2020).

3.4.5. Regression analysis

One of the most used data analysis techniques is regression analysis, because it gives straightforward approaches for demonstrating a causal relationship between variables (Chatterjee & Hadi, 2006; Montgomery et al., 2021). It is a statistical method for analyzing variable relationships. Typically, the investigator seeks to ascertain the impact of one factor on another, such as the impact of service quality on customer satisfaction. Investigator will frequently assess the estimated correlations' "statistical significance," which is the assurance that the true relationship is identical to the calculated relationship (Sykes, 1993). In regression analysis, the normal procedure is to acquire data, fit a model, and then evaluate the fit using statistical indices such as t, F, and R^2 . The connection is represented by a formula or model that links the dependent factor to one or more explanatory or predicting factors (Chatterjee & Hadi, 2006). Thus, regression analysis will evaluate the impact of HCA Vietnam's service quality on customer satisfaction.

3.4.6. Moderated multiple regression analysis

Moderator factors alter the intensity and/or direction of the relationship between a predictor and an outcome by strengthening, decreasing, or modifying the predictor's influence. Moderation effects are often stated as an interaction between factors, where the effects of one factor rely on the levels of the other variable in the study. The effects are normally tested using moderated multiple regression analysis (MMR). When a moderator factor is present, the strength of the relationship between an independent and dependent factor varies depending on the value of the moderator factor, the moderator factor is said to moderate the relationship between the other two factors (Fairchild & MacKinnon, 2009; Fritz & Arthur, 2017).

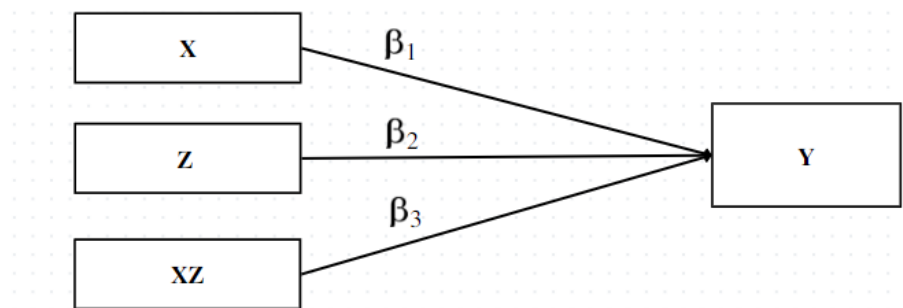


Figure 3.3: The moderation statistical diagram (Fairchild & MacKinnon, 2009)

The combined impact of the moderator factor and the independent factor is also referred to as an interaction between the two factors, which varies from the independent and moderator factors' separate effects on the dependent factor. The independent and moderator factors both regulate the relationship between the other factors and dependent factors (Fritz & Arthur, 2017). Multicollinearity between variables and interaction terms is another issue to consider when testing interactions. Multicollinearity arises when predictors in a multiple regression are highly associated with one another, resulting in excessively large standard errors and further decreasing the statistical power to detect an interaction (Fritz & Arthur, 2017). Aiken & West (1991) and Kromrey & Johnson (1998) showed that mean centering the predictors prior to establishing an interaction term can reduce the correlation between the predictors and the interaction term, hence minimizing multicollinearity in MMR. Mean centering, according to these authors, can improve the precision and stability of estimates by lowering the standard error. The mean centring approach may theoretically increase or decrease the correlation between the predictor variables and their cross-product when the sample means of the predictors are not zero, depending on the characteristics of the data. Numerous empirical studies have shown that mean centring can lower the correlation between predictor variables and their cross-products (Shieh., 2011; Yu et al., 2015). In this study, the moderating impact of

Brand Awareness will be investigated using multiple regression analysis and the mean centering approach.

3.5. Ethical Consideration

Every researcher needs to be aware of ethical issues and define strategies to avoid them. According to Rana et al., (2021), based on the Principles of Research Ethics (Homan, 1991; Israel and Hay, 2006; Kimmel, 1988), there are several basic principles of research ethics that researchers should consider during the planning and designing phases, as follows:

Minimizing the Risk of Harm:

Any participant in study must not suffer damage as a result of their participation. Even so, breaking the anonymity rule might cause participants to experience a variety of forms of harm, including psychological discomfort, bodily pain, financial loss, social embarrassment, and invasion of privacy. Therefore, it is crucial to lower the risk of damage by obtaining informed consent, protecting participants' identity and confidentiality, abstaining from any unethical activities, and allowing them to leave the research at any time.

Obtaining Informed Consent:

A contract between participants and researchers is referred to as "informed consent" and it incorporates the two crucial terms "informed" and "consent." The permission form should include information about the study's goals, the questions that will be asked, the methods utilized, how the data will be used, prospective research findings, and any potential drawbacks or risks/consequences that participants might encounter. Participants must give express, written agreement to engage in the research, as well as knowledge of their rights to information access and withdrawal at any time. It is customary to note in the permission form that participants entered the study voluntarily and without being coerced or deceived.

Protecting Anonymity and Confidentiality:

Researchers must keep the participants' private sharing information confidential. While data is not properly handled and protected after collection, especially when it is being published, there is a greater chance that it will experience a data breach. If the researchers want to reveal the confidential data or information of the participants, they need to get "informed consent" from the research participants to have permission.

Providing the Right to Withdraw:

The majority of research ethics committees place a heavy emphasis on participants' "right" to voluntarily terminate their participation in studies at any time and for any reason. The withdrawal option is meant to shield research participants from unavoidable bodily intrusion, informational imbalance, inherent uncertainty, and inability to hedge. Therefore, the research study team must ensure that there is no way to prevent a participant from leaving the study if they are thinking of doing so.

3.6. Conclusion

This chapter describes the research methodology that was employed in the study to address the research questions. This covered research methodology, research approaches, and research philosophy. Data sources, data collection methods, and study measurements for service quality, customer satisfaction, and brand awareness are offered. In order to solve the presented hypothesis, researchers use reliability analysis, descriptive analysis, and regression analysis, all of which are indicated in this chapter. The ethical issues are also mentioned at this point.



CHAPTER 04



This chapter summarizes the results after analyzing the data using the methods mentioned in Chapter 3.

Chapter 4: Findings and Analysis

4.1. Survey analysis

4.1.1. Respondents' profile

After conducting an email survey from October 16 to November 20, we have gathered 311 responses in total. After rejecting invalid responses, 193 responses were ready for final analysis.

According to the study sample, most of the representatives of all exporting companies participating in the survey are located in the Southern region of Vietnam, with 142 companies accounting for 73.6 percent of the total, followed by 32 companies located in the Central region and 19 companies located in the Northern region. 52.3% are exporting companies with less than 200 employees, 37.3% have 200-500 employees, 4.1% have 500-1000 employees, the rest are 12 companies with more than 1000 employees.

Halal products can be divided into 4 main fields involving food and beverage, medicine, cosmetics and functional foods, however all of the companies participating in the survey are specified in exporting food and beverage Halal products.

According to the data gathered, most of the respondents (88/193 companies) have been in the Halal product exporting business for 5-10 years. Next are those with 0-5 year experiences with 59 companies, followed by 31 companies with 10-15 year experiences. The fourth group are those that have been in it for 15-20 years with 11 companies, and the last group are 4 companies that have more than 20 years in the Halal product exporting business.

193 exporting companies have different main export markets. In which, the largest proportion is Malaysia, the main exporting market of 45.6% respondents, followed by Singapore with 39.9%. The third main export market is Korea with 34.2%. Apart from UAE (27.46%), Thailand (25.91%), Indonesia (22.28%), Vietnam exporting companies also choose to penetrate other markets like the USA (17.1%), Japan (16.6%), EU (15.54%), or China (11.9%).

From the establishment of HCA Vietnam till now, it has been over 13 years. In the 193 exporting companies participating in the survey, 112 (58.03%) of them have been customers of HCA Vietnam for 5-10 years. The second position belongs to the companies using the service of HCA Vietnam for 0-5 years with 68 (35.23%) companies. Finally, there are 13 (6.74%) companies that have accompanied HCA Vietnam for over 10 years.

HCA Vietnam provides 3 Halal certification programs: Jakim Certification program, GCC (Gulf Cooperation Council) program and Halal MUI certification program. In 193 respondents, the number of exporting companies that have used the Jakim Certification program accounts for 91.19%, followed by 25.91% of companies using the GCC (Gulf Cooperation Council) program and 17.10% using Halal MUI certification program. Moreover, in total, there are 31 companies that have used both the Jakim Certification

program and the GCC (Gulf Cooperation Council) program, and 21 companies that have used both the Jakim Certification program and Halal MUI certification program. For the last, there are 8 exporting companies that have used all of the programs.

4.1.2. Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
T1	193	1	5	3.19	0.872	0.760
T2	193	1	5	3.08	0.810	0.655
T3	193	1	5	3.19	0.748	0.559
T4	193	1	5	3.65	0.796	0.634
T5	193	1	5	4.04	0.785	0.617
R1	193	1	5	4.06	0.923	0.852
R2	193	1	5	3.94	0.939	0.882
R3	193	1	5	3.95	0.897	0.805
R4	193	1	5	3.85	0.975	0.951
R5	193	1	5	3.94	0.855	0.731
R6	193	1	5	3.89	1.163	1.352
RES1	193	1	5	3.75	0.890	0.792
RES2	193	1	5	3.68	0.984	0.969
RES3	193	1	5	3.58	1.044	1.089
RES4	193	1	5	3.61	0.994	0.989
RES5	193	1	5	3.52	1.041	1.084
A1	193	1	5	3.98	0.832	0.692
A2	193	1	5	3.69	0.938	0.880
A3	193	1	5	4.04	0.962	0.925
A4	193	1	5	3.89	0.981	0.962
A5	193	1	5	3.67	1.023	1.046
E1	193	1	5	3.44	0.929	0.862
E2	193	1	5	3.36	0.817	0.667
E3	193	1	5	3.41	0.964	0.929
CS1	193	1	5	3.59	0.976	0.952
CS2	193	1	5	3.84	0.950	0.903
CS3	193	1	5	3.75	0.968	0.938
CS4	193	1	5	3.94	0.798	0.637
B1	193	1	5	3.41	0.938	0.879
B2	193	1	5	3.56	0.917	0.841
B3	193	1	5	3.63	0.977	0.954
B4	193	1	5	3.52	0.860	0.740
B5	193	1	5	3.42	0.893	0.798
B6	193	1	5	3.65	0.963	0.927
Valid N (listwise)	193					

Table 4.1: Descriptive statistics

As shown in the table, we conclude that overall, the survey items have a mean around 3 and 4. None of the items receive a much higher rating than others.

4.1.3. Scale's reliability

We used Cronbach's Alpha Index to find the reliability of the measurement scales. The results are shown in Table 4.2.

Tangibles		
Cronbach's Alpha	.867	
Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
T1	.801	.810
T2	.677	.843
T3	.741	.829
T4	.615	.857
T5	.626	.855

Reliability		
Cronbach's Alpha	.903	
Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
R1	.745	.884
R2	.629	.901
R3	.749	.884
R4	.731	.886
R5	.786	.879
R6	.789	.879

Responsiveness		
Cronbach's Alpha	.884	
Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RES1	.661	.872
RES2	.718	.859
RES3	.731	.856
RES4	.679	.868
RES5	.815	.835

Assurance		
Cronbach's Alpha	.891	
Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
A1	.717	.873

A2	.702	.875
A3	.745	.865
A4	.720	.871
A5	.799	.853

Empathy		
Cronbach's Alpha	.834	
Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
E1	.653	.814
E2	.794	.687
E3	.654	.811

Customer Satisfaction		
Cronbach's Alpha	.904	
Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CS1	.831	.868
CS2	.835	.865
CS3	.806	.876
CS4	.734	.900

Brand Awareness		
Cronbach's Alpha	.907	
Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
B1	.747	.893
B2	.754	.892
B3	.758	.892
B4	.736	.896
B5	.788	.888
B6	.810	.884

Table 4.2: Reliability analysis using Cronbach's Alpha

As shown in the table, all of the factors have Cronbach's Alpha around 0.834 to 0.907, which indicates a highly reliable measurement scale. In addition, the Corrected item-total correlation of every item is above 0.3, which means that the current measurement scale is ready for further analysis.

4.1.4. Exploratory factor analysis

Before moving onto the next steps, we decided to run an exploratory factor analysis (EFA) in SPSS to figure out whether or not the questionnaire items truly represent the factors that contain them.

KMO and Bartlett's Test for independent factors						
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.						.626
Bartlett's Test of Sphericity					Sig.	.000
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.972	33.217	33.217	7.972	33.217	33.217
2	3.394	14.141	47.358	3.394	14.141	47.358
3	2.535	10.564	57.922	2.535	10.564	57.922
4	2.381	9.920	67.842	2.381	9.920	67.842
5	1.340	5.584	73.425	1.340	5.584	73.425
6	.963	4.011	77.436			
7	.804	3.350	80.786			

Rotated Component Matrix					
	Component				
	1	2	3	4	5
R1	.793				
R4	.787				
R5	.739				
R6	.731				
R2	.714				
R3	.692				
A4		.780			
A5		.776			
A3		.721			
A2		.714			
A1		.628			
T1			.874		
T3			.834		
T2			.732		
T5			.687		
T4			.649		
RES5				.850	
RES2				.692	
RES3				.681	
RES4				.626	

RES1				.565	
E2					.944
E1					.742
E3					.717

Table 4.3: Exploratory factor analysis results for independent factors

Table 4.3 shows the results of EFA for independent factors. Firstly, the KMO index is $0.626 > 0.5$, and Bartlett's test significance is $0.000 < 0.05$ which is suitable for exploratory factor analysis (Tabachnick & Fidell, 2007). Secondly, SPSS divided the items into 5 factors, with all eigenvalues > 1 , and the total cumulative % of variance is $73.425\% > 50\%$, which means that the EFA model is suitable. The five factors together accounted for 73.425% of the total variance. Finally, the rotation matrix shows that all 24 factors are grouped into 5 factors, with all factor loading > 0.5 .

KMO and Bartlett's Test for dependent factor						
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.						.783
Bartlett's Test of Sphericity					Sig.	.000
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.181	79.516	79.516	3.181	79.516	79.516
2	0.430	10.762	90.278			
3	0.238	5.954	96.232			
4	0.151	3.768	100.000			

Component Matrix	
	Component
	1
CS1	.893
CS2	.884
CS3	.857
CS4	.775

Table 4.4: Exploratory factor analysis results for dependent factor

Table 4.4 shows the results of EFA for the dependent factor. Firstly, the KMO index is $0.783 > 0.5$, and Bartlett's test significance is $0.000 < 0.05$ which is suitable for exploratory factor analysis. EFA returns only 1 factor, with an eigenvalue equals to $3.181 > 1$, and total

% of variance is 79.516% > 50%, which means the factor accounted for 79.516% of the total variance.

KMO and Bartlett's Test for moderating factor						
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.						.833
Bartlett's Test of Sphericity					Sig.	.000
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.258	70.960	70.960	4.258	70.960	70.960
2	0.472	7.863	78.823			
3	0.452	7.531	86.354			
4	0.390	6.504	92.858			
5	0.279	4.654	97.512			
6	0.149	2.488	100.000			

Component Matrix	
	Component
	1
B6	.824
B5	.822
B3	.817
B2	.799
B1	.795
B4	.787

Table 4.5: Exploratory factor analysis results for moderating factor

Table 4.5 shows the results of EFA for the moderating factor. The KMO index is 0.833 > 0.5, and Bartlett's test significance is 0.000 < 0.05 which is suitable for exploratory factor analysis. EFA returns only 1 factor, with eigenvalue equals to 4.258 > 1, and total % of variance is 70.960% > 50%, which means the factor accounted for 70.960% of the total variance.

4.1.5. Correlation analysis

Correlations								
		TAN	REL	RES	ASS	EMP	CUS	BA
TAN	Pearson Correlation	1	.139	.263**	.181*	.011	.212**	.047
	Sig. (2-tailed)		.054	.000	.012	.883	.003	.514
	N	193	193	193	193	193	193	193
REL	Pearson Correlation	.139	1	.463**	.452**	.158*	.688**	.278**
	Sig. (2-tailed)	.054		.000	.000	.028	.000	.000
	N	193	193	193	193	193	193	193
RES	Pearson Correlation	.263**	.463**	1	.623**	.229**	.673**	.085
	Sig. (2-tailed)	.000	.000		.000	.001	.000	.238
	N	193	193	193	193	193	193	193
ASS	Pearson Correlation	.181*	.452**	.623**	1	.036	.622**	.197**
	Sig. (2-tailed)	.012	.000	.000		.616	.000	.006
	N	193	193	193	193	193	193	193
EMP	Pearson Correlation	.011	.158*	.229**	.036	1	.194**	.323**
	Sig. (2-tailed)	.883	.028	.001	.616		.007	.000
	N	193	193	193	193	193	193	193
CUS	Pearson Correlation	.212**	.688**	.673**	.622**	.194**	1	.179*
	Sig. (2-tailed)	.003	.000	.000	.000	.007		.013
	N	193	193	193	193	193	193	193
BA	Pearson Correlation	.047	.278**	.085	.197**	.323**	.179*	1
	Sig. (2-tailed)	.514	.000	.238	.006	.000	.013	
	N	193	193	193	193	193	193	193
**. Correlation is significant at the 0.01 level (2-tailed).								
*.Correlation is significant at the 0.05 level (2-tailed).								

Figure 4.3: Correlation coefficient analysis result

As shown in figure 4.3, the results show that all the independent factors have a correlation with the dependent factors with a significance level < 0.05 . In more detail, factor Reliability has the strongest correlation, with r equal to 0.688, followed by Responsiveness and Assurance, with r equal to 0.673 and 0.622, respectively. Tangibles shows a weaker correlation with Customer Satisfaction, with r equal to 0.212. Empathy shows the weakest correlation among the 5 factors, with r equal to 0.194. In addition, the Brand Awareness factor also has a correlation with each other factors, except for Tangibles and Responsiveness. In which, the relationship with Customer satisfaction is weak, with r equal to 0.179, Brand Awareness also correlates with Reliability, with r equal to 0.278, Assurance ($r=0.197$), and Empathy ($r=0.323$). Since there are no factors with high correlation ($r>0.8$), multicollinearity will not be a problem (Shrestha, 2020).

4.1.6. Regression analysis

To find the relationship between service quality and HCAV's customer satisfaction, the simple linear regression method was used, testing hypotheses 1, 2, 3, 4, and 5. In addition, we also consider the effect of control variables. The multicollinearity indicator will also be measured using the VIF index.

Model 1 Summary ^b					
Model	R	R Square	Adjusted Square	Std. Error of the Estimate	Durbin-Watson
1	.814 ^a	.662	.652	.51188	2.030

a Predictors: (Constant), EMP, TAN, ASS, REL, RES

b Dependent Variable: CUS

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	96.003	5	19.201	73.279	.000 ^b
	Residual	48.998	187	.262		
	Total	145.001	192			

a Dependent Variable: CUS

b Predictors: (Constant), EMP, TAN, ASS, REL, RES

Table 4.6: Model 1 summary and ANOVA results of SPSS Analysis

In the model summary table, the adjusted R-square is 0.652, which means 65.2% of the variance in exporting companies' satisfaction is on HCAV's Halal certification service. The Durbin-Watson index is 2.030, which indicates that there is no autocorrelation in the sample. In the ANOVA test, the significance of the F-test is $0.000 < 0.05$, which means that the independent factors can explain the dependent factors.

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.513	.291		-1.764	.079		
	TAN	.036	.057	.028	.630	.529	.928	1.078
	REL	.468	.054	.429	8.644	.000	.735	1.361
	RES	.335	.062	.318	5.390	.000	.519	1.925
	ASS	.246	.062	.223	3.942	.000	.563	1.775
	EMP	.049	.048	.045	1.016	.311	.918	1.089

a. Dependent Variable: CUS

Table 4.7: Regression analysis results for independent factors

We conducted regression analysis by entering the control and independent factors in SPSS Linear Regression Analysis. The result shows that there are 3 factors: Reliability, Responsiveness, and Assurance affect exporting companies' satisfaction. Reliability is the most impact factor, with a standardized beta $\beta = .429$ and $p \leq .01$. The following are Responsiveness, with $\beta = .318$ and $p \leq .01$, and Assurance, with $\beta = .223$ and $p \leq .01$. Tangibles and Empathy do not significantly affect exporting companies' satisfaction, since their p -value > 0.05 . Multicollinearity will not happen because the VIF values of the factors are lower than 2. Table 4.7 shows the regression analysis results, with key measures such as beta index, standardized error, p -value, and VIF.

4.1.7. Moderator analysis

To analyze the moderating effect of Brand Awareness on the relationship between service quality factors and customer satisfaction, we use regression analysis from SPSS. The original equation for moderating effect is $y = \beta_0 + \beta_1 * x_1 + \beta_2 * x_2 + \beta_3 * x_1 * x_2$ (Henseler & Fassott, 2010). In the formula, β_0 is the intercept, and $x_1 * x_2$ is the product of x_1 and x_2 (independent factor and moderating factor), which shows the effect of the moderator on the independent factor. We also used the mean-centering method to reduce the possibility of multicollinearity. To do that, we calculate the standardized value of the independent factors and the moderator using SPSS, then use that value to calculate the interaction term by multiplying each independent factor with the moderating factor. After calculating the interaction terms, we use regression analysis in SPSS and enter independent factors, moderating factor, and each interaction term into the model. In the end, we got a total of 7 models. Table 4.8 shows that INT_REL and INT_ASS have significant moderating effects. This means that Brand Awareness has positive moderate effect on the relationship between Reliability and Customer satisfaction, with $\beta = .089$ and $p \leq .05$, and the relationship between Assurance and Customer satisfaction, with $\beta = .097$ and $p \leq .05$. From the result, we conclude that the more exporting companies perceive that HCAV has high Brand Awareness, the more satisfaction they will have on HCAV's Reliability and Assurance while using their service. We follow Hayes & Montoya (2017) method to draw an interactive effect graph by using the mean, one standard deviation below the mean, and one standard deviation above the mean. This will represent low, normal and high levels of Brand Awareness. The interactive effects of interaction terms are shown in Figure 4.1 and Figure 4.2 (refer to Appendix 4).

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
Adjusted R Square	.653		.652		.650		.658		.651		.659		.654	
	Beta	S.Error	Beta	S.Error	Beta	S.Error	Beta	S.Error	Beta	S.Error	Beta	S.Error	Beta	S.Error
Independent Factors														
TAN	.029	.057	.029	.058	.028	.060	.035	.057	.026	.058	.039	.057	.020	.058
REL	.429**	.054	.437**	.055	.437**	.056	.427**	.055	.437**	.056	.439**	.055	.445**	.056
RES	.318**	.062	.309**	.064	.309**	.064	.296**	.063	.316**	.065	.304**	.063	.306**	.063
ASS	.223**	.062	.231**	.064	.231**	.064	.246**	.064	.229**	.064	.226**	.063	.233**	.063
EMP	.045	.048	.056	.051	.057	.052	.067	.051	.056	.051	.052	.051	.057	.051
Moderating Factor														
BA			-.034	.050	-.034	.050	-.023	.050	-.037	.051	-.002	.052	-.030	.050
Interaction term														
INT_TAN					-.004	.039								
INT_REL							.089*	.033						
INT_RES									-.026	.040				
INT_ASS											.097*	.040		
INT_EMP													.062	.038

Note: N=193, *p<0.05, **p<0.001 (two-tailed)

Table 4.8. Regression results for moderating factor

4.1.8. Hypothesis conclusion

The results of our hypothesis testing will be summarized in the following figure. To summarize, 5 of 10 hypotheses were accepted.

Hypothesis	Code	Result
HCAV's Tangibles positively affects exporting companies' satisfaction	H1	Rejected
HCAV's Reliability positively affects exporting companies' satisfaction	H2	Accepted
HCAV's Responsiveness positively affects exporting companies' satisfaction	H3	Accepted
HCAV's Assurance positively affects exporting companies' satisfaction	H4	Accepted
HCAV's Empathy positively affects exporting companies' satisfaction	H5	Rejected
Brand Awareness of HCAV positively moderates the relationship between Tangible and exporting companies' satisfaction.	H6a	Rejected
Brand Awareness of HCAV positively moderates the relationship between Reliability and exporting companies' satisfaction.	H6b	Accepted
Brand Awareness of HCAV positively moderates the relationship between Responsiveness and exporting companies' satisfaction.	H6c	Rejected
Brand Awareness of HCAV positively moderates the relationship between Assurance and exporting companies' satisfaction.	H6d	Accepted
Brand Awareness of HCAV positively moderates the relationship between Empathy and exporting companies' satisfaction.	H6e	Rejected

Figure 4.4: Hypothesis conclusion

4.2. Discussion

4.2.1. Service quality factors

4.2.1.1. Tangibles

According to Mariam Setapa et al. (2020) and Amiri et al. (2012), the relationship between Tangibles dimension and customer satisfaction is positive. However, based on the results of the survey, Tangible is one of the factors that does not affect the exporting companies' satisfaction for several reasons.

In the previous in-depth interview, two of HCAV's experts said that most of their clients would contact and work with the agency mostly through online channels or HCAV's employees would arrive at the customer's workplace. Due to the characteristics of HCAV's working operation, the steps for applicants who demand to register Halal services will be done mainly online or by phone, and they just need to wait for HCAV's employees to come to their office for the Halal standard examination. Even after an exporting company qualifies for the Halal standard, they do not need to come directly to the office to receive the Halal certification but HCAV would send it to the client through postal mail. The

customers would only come to the HCAV office when they needed to solve critical problems or when they entered the courses organized by HCAV. In brief, clients do not frequently come to the company to visit, so it is vague to customers if they are asked to evaluate the physical facilities and equipment of the HCAV office.

In this study, the physical facilities and equipment of HCAV cannot be assessed objectively by the customers. Nevertheless, they still can evaluate human perspectives. According to the data gathered, 62.3% and 79.27% of respondents strongly agree and agree with the professional attitude, neat attire, and clean appearance of HCAV's employees, respectively. Nowadays, the control of employees' attitudes and appearance is increasingly recognized as legitimate managerial strategies for service companies that have service quality and customer care (Nickson et al., 2005). N Hidayah and T W Murti (2019) assume that when auditing data, the auditor's appearance is good and can be trusted, so the customer has completely counted on the auditor. This is supported by the assumption that customers are trustworthy, professional auditors who provide great advice. Therefore, customers' satisfaction with auditors' performance and services to customers applying for Halal certification is influenced by a good auditor's appearance. However, having a good appearance is not enough; the attitude of the staff is considered as an essential key to satisfying customers. Because an employee is the one who works directly with customers; hence, friendly, professional, and flexible attitudes are needed to get higher customer satisfaction. In fact, most of HCAV's employees are experienced in providing Halal certified services for more than 3 years. Therefore, they know how to be professional, from the appearance (dressing politely) to the attitude (being friendly and professional), so that they can impress the customers and satisfy them. In addition, HCAV's employees are always devoted to consulting carefully and clearly with customers about the right process and the steps to get Halal certification so that they can deeply understand and properly know how to conduct these steps. When there is a complaint from a client about HCAV's employee, according to the previous in-deep interview with director of HCA Vietnam, he said that the agency would conduct meetings to figure out the root cause and improve it. He thought the complaints were not a burden but more like an opportunity for the agency to look back and innovate the process and service to be better in the future.

In general, although human aspects such as appearance and attitude can be evaluated by customers, the Tangibles still do not affect exporting companies' satisfaction because HCAV's clients cannot specifically assess the workplace environment and physical facilities, which contribute a large proportion of Tangible rates.

4.2.1.2. Reliability

Based on the results of the regression analysis by the authors, it is obvious that reliability came in first place, showing that this factor has the largest influence among other factors. This finding is consistent with studies by Setapa et al., (2020), Leong et al. (2015), Amiri et al. (2012), and Hamid et al. (2016). In the study of Hamid et al. (2016), the authors concluded that Reliability is one of the most important attributes in the evaluation of service quality of Halal restaurants. This result is also aligned with the study conducted by Setapa et al. (2020) as authors also emphasize the significance of Reliability.

Initially, HCAV has the ability to meet customers' needs. As witnessed from the survey's result, most exporting companies agree that HCAV can satisfy their needs and requests while applying for Halal certification. In particular, 69.9% of customers believe that HCAV is able to meet customers' needs; 65.3% of them think that HCAV is committed to customers in terms of the value of Halal certification.

As the size of Muslims community is flourishing by the time, chances and threats for companies to penetrate this market are also increasing. Being the only organization in Vietnam able to issue legal certificates for export, HCA Vietnam always assists companies throughout the road of entering Islamic market. Depending on which country that companies want to export to, professors from HCAV will guide and choose the appropriate program since Muslim markets are not homogenous in terms of Halal certification but have their own Halal requirements and standards. In other words, if a company wants to approach the GCC (Gulf Cooperation Council) market (including 6 countries: Bahrain, Kuwait, Oman, Qatar, the United Arab Emirates (UAE), and Saudi Arabia) to export food, the GCC Program is a suitable choice since its certification is valid for 3 years. Meanwhile, the MUI Program is applicable to companies that want to export materials, semi-finished products, and flavorings into every country except for GCC and Malaysia. Another much more flexible program is the JAKIM Program, which allows HCAV to audit every product to transport to all countries except for Indonesia and GCC.

The results of the survey also prove that HCAV is a reliable agency. Most customers go along with the idea that HCAV is a reliable agency and is able to solve problems experienced by customers. Notably, nearly 75% of customers indicated that HCAV is a reliable organization. 76.2% customers strongly agree that HCAV is able to issue Halal certification at the promised time; 69.9% strongly agree with the item "HCAV can solve problems experienced by customers" while the opposite opinions only hover around 7%. Based on this result, it is evident that HCAV is providing customers with the best support. Exporting companies have to cope with many obstacles when applying for Halal certification. First of all, they do not comprehend knowledge of the Islamic market (its business culture, religion, and customers' needs), even though this is an enormous and potential market. Next, businesses lack information about their products, markets for Halal

products, regulations, and requirements to be able to penetrate deeply into the world Islamic market. Another concern of exporting companies is the issuance of Halal certification whether they can obtain it on time to transport their products. However, companies are given advice and solutions when coming to HCAV since experts are trained. HCAV also ensures to issue certification in one month since companies' information profiles are precise and adequate.

One more important item about reliability is price, which has been proved reasonable by customers while experiencing HCAV's services. As stated in the email survey, about 41% customers strongly agree and 23.8% agree that HCAV offers the cost within the reasonable range. The price of a product is the determining factor in the market demand for that product. Therefore, the price has an impact on the company's revenue, profit, market share, and competitive position. Naturally, competitors can also quickly change their prices in reaction. Therefore, understanding the factors that affect the price will help businesses make the right decisions about prices. Wantara et al. (2019) indicated that price has a significant effect on customer satisfaction. If a company offers a reasonable price, the consumer will respond favorably, which creates a feeling of satisfaction among customers. Therefore, it can be seen that HCAV has an acceptable price and customers are satisfied with it while using their service.

4.2.1.3. Responsiveness

According to the survey conducted by these authors, Responsiveness has a positive impact on exporting companies' satisfaction, which ranked in the second place among five factors. This finding is consistent with the study conducted by Bungatan & Reynel (2021), Leong et al. (2015), and Amiri et al. (2012). Bungatan & Reynel emphasized that based on its influence on customer satisfaction, the Responsiveness component is still unable to give the highest value, and that it should be prioritized for improvement. This company must prioritize service speed, readiness to respond to requests from clients, willingness to assist/receive customer complaints, and supply of information about service operations.

Firstly, exporting from the survey result, these authors witnessed that 62.3% percent of business customers choose to strongly agree and agree while only 2.6% of disagreement to the point of the willingness of supporting customers (RS2).

Based on this result, the authors point out that HCA Vietnam is doing well in supporting its business customers. In each process, these staff always focus on their customers and support them in every corner. For example, when their customers do not understand Islamic law or feel confused about the auditing process, HCA Vietnam employees are willing to explain and carefully instruct them.

Secondly, as witnessed from the survey result, the percentage of respondents who strongly agreed and agreed were 58.1% with the point “HCAV informs customers about service availability” (RS3). Simply stated, service availability refers to the percentage of a service that is accessible to clients during the period the company committed to making it available. HCA Vietnam is now the only organization in Vietnam to achieve international recognition by JAKIM (Malaysia), GCC Accreditation Center (GAC), ESMA (UAE), MUIS (Singapore), CICOT (Thailand), KFDA (Korea), and is a member of the World Halal Food Council. Therefore, the value and availability of Halal certification at HCA Vietnam are much higher than other competitors. In the end, the result of using the HCA Vietnam service is to achieve the most suitable certification for exporting companies. In other words, it is the value of Halal certification that has been granted by HCA Vietnam, also considered as the availability of service. In the end, the type of certification must be suitable for the exporting purpose of the customer. For instance, if they want to export to the UAE, HCA Vietnam must serve them with a GCC program. If not, the client is unable to export to their destination, making the service's availability look pointless. And thanks to HCA Vietnam, many exporting companies can export their products to Halal markets such as Trung Nguyen Coffee, TH True milk, Vinamilk, etc.

Also, it is indicated throughout the place where the company is located, the working time, and whether customers can be well served or not at that time. In the case of HCA Vietnam, this agency now has three offices, which are located in the capital Hanoi, Ho Chi Minh City and Can Tho. Hence, customers in every part of the country will be able to access and experience HCA Vietnam's service. Compared with other agencies operating in Halal service, HCAV has wider coverage with three offices in the north and the south (figure 4.5). Moreover, the working time of HCA Vietnam is eight hours per day, which legally obeys the labor law of Vietnam and also meets the needs of business customers in terms of working time.

No.	Halal certification agency in Vietnam	Number of Offices distribution	Location
1	HCA Vietnam (Halal Certification Agency Vietnam)	3	1. Head office: 3rd Floor, Hai Van Building, 129B Tran Dang Ninh, Dich Vong Ward, Hanoi City, Vietnam. 2. Ho Chi Minh Office: E1-12A Block A, Sky Center, No. 5B Pho Quang, Ward 2, Tan Binh District, Ho Chi Minh City. 3. Can Tho Office: 5th floor, STS Tower, 11B Hoa Binh Boulevard, Ninh Kieu District, City. Can Tho, Vietnam.
2	Halal Vietnam - HVN	2	1. Office in Hanoi City : No 4/67- An Dao C, Trau Quy, Gia Lam, Hanoi City, Vietnam.2. Branch in HCM City : Level 46, 02 Hai Trieu, Ben Nghe Ward, District 1, Ho Chi Minh City, Vietnam.
3	International Food Service - FOSI	2	1. Head office: 470 Le Thi Rieng, Thoi An Ward, District 12, HCMC2. Office: 253 Tan Son, Ward 15, Tan Binh District, City. Ho Chi Minh
4	International Halal Certification Organization Vietnam Company Limited	1	Road D2, Viet Hoa Industrial Park, Duc Hoa 3, Duc Lap Ha Commune, Duc Hoa District, Long An
5	Vietnam Halal Center Company Limited	1	Waseco Building, No. 10 Pho Quang, Ward 2, Tan Binh District, HCMC
6	Vietnam National Halal Company Limited	1	10 Phan Dinh Giot, Ward 2, Tan Binh District, Ho Chi Minh City, Vietnam
7	Halal Authority Vietnam (HAV)	1	53, Ho Hao Hon, Co Giang Ward, District 1, City. Ho Chi Minh City
8	Halal Vietnam Certification Service Company Limited	1	641 Nguyen Trai, Ward 11, District 5, Ho Chi Minh City, Vietnam
9	Halal Association Vietnam Co., Ltd	1	28A/14 Duong Ba Trac, Ward 2, District 8, Ho Chi Minh City
10	Vietnam Malaysia Center Of Halal	1	K2-17 Vo Nguyen Giap, Phu Thu Ward, Cai Rang District, Can Tho City

Figure 4.5: The comparison of the number of offices distributed among Halal certification agencies in Vietnam (Collected from companies' websites)

To put it another way, HCA Vietnam also has a website that adequately informs visitors about the agency's information, Halal certification, Sharia Law, and other relevant topics, which can help seekers easily access and find the needed information. Therefore, customers can have the most comprehensive view of the whole company and easier access to its services.

Thirdly, according to the result of the surveys, 64.8% of exporting companies chose to strongly agree and agreed with the statement "HCAV provides assurance to customers regarding the service time of halal certification" (RS4). Also, the percentage of enterprises

who strongly agreed and agreed with the point “The speed of the halal certification service officer in facing the request of the applicant” (RS5) achieved respectively up to 37.7% and 28.9%.

As can be seen from the outcome, HCA Vietnam is performing well in terms of ensuring customers receive Halal certification services on schedule. These customers of HCA Vietnam are mostly satisfied with the confirmation time for supplying Halal certification as promised by this agency. For any business, the assurance of service time when experiencing any kind of service is critically crucial. The impact of the wrong time in providing service will harm any business and make them lose their competitiveness. For instance, if the provider of service - HCA Vietnam slowly responds to the request from exporting enterprises for providing Halal certification for their exporting goods, these businesses will miss the chance of exporting to the Halal market. The consequences are much more than that, not only affect the time and financial issues of the business customers but also affect HCA Vietnam’s reputation. According to the expert survey, the founder of this agency also underlined firmly that assurance of service time in the Halal certification process is one of the most important elements that they had to be cautious of in the in-depth interview with an HCA Vietnam specialist. Besides, the person in charge of the Islamic law in HCA Vietnam strongly emphasizes that time spent on providing certification needs to be absolutely accurate. For example, if their customer has seasonal or fresh food (seasonal fruits or meat, chicken, seafood, etc.) timeliness is significantly crucial. In case HCA Vietnam cannot meet the deadline for the whole procedure of providing certification, exporting enterprises may face the probability of not being able to export goods to the Halal market and even miss their probable deadline. Their products may not be guaranteed for quality, damaged, moldy, or rotten due to the prolonged waiting time for certification from the agency.

Finally, HCA Vietnam is making every effort to respond to all client requests in the fastest and most appropriate way. HCA Vietnam takes from 2 days to 3 days of receiving requests from customers and 4 weeks for the whole process of auditing, surveillance audit, and certification decision. The most precise time must be used to thoroughly consider each step of the procedure. However, in the stage of “informing the certification fee and signing the certification contract”, the time for clients to get a quotation is sometimes slow. The reasons here are that the customer sometimes provides inadequate information, so it takes time for HCAV to verify, or that some of the clients want to be responded to immediately after sending the request. However, the time is not enough for the employee to check the order’s information, so they do not meet customers’ expectations. Another explanation might be that the customer's contract differs from the sample contract provided by HCA

Vietnam, necessitating the staff spending more time investigating this case before answering.

4.2.1.4. Assurance

The results of the regression analysis show that Assurance positively affects HCAV customers' satisfaction and ranks third among the five service quality factors. This result is in line with previous research such as Kassim et al., 2015; Arsanam & Yousapronpaiboon, 2014.

First and foremost, the authors discuss the point: "Employees have extensive knowledge of the services provided". According to the results of our survey, 75.1% of respondents strongly agree and agree with the fact that HCAV employees have expert knowledge in their field and their service. All of the HCAV's employees are required to have at least a bachelor's degree in food technology. For any employee, knowledge is one of the keys that drive businesses' success. When it comes to the HCAV context, each individual's expertise is crucial, because the work requires a deep understanding of Halal, Haram, Sharia law, and the Halal certification process. By having great knowledge related to Halal certification, the employees of HCAV will always be ready and able to provide high-quality service. In addition, HCAV has training programs for their employees and businesses about general knowledge of Halal certification. The training program will help employees gain more expertise, while businesses will understand more about Halal certification requirements, processes, and Halal standards.

Next, the survey results also show that over 71% of the respondents strongly agreed with the fact that HCAV employees behave politely to its customers. This indicates that HCAV customers feel that HCAV employees provide enough safety for them, by behaving politely.

Last but not least, 67.7% of the respondents strongly agree and agree with the fact that "Information regarding customer data is kept confidential and securely stored by HCAV", and "HCAV provides a sense of security and comfort to its customers during the Halal certification process". Those indicate that when working with HCAV, most of the customers feel secure and safe. Statistics around the world show that every second there are 900 cyberattacks, and 5 new malicious codes born, 40 security holes are detected every day. During the pandemic, 81% of business leaders surveyed said they had to bypass cybersecurity controls, despite the increasing trend of attacks (VNexpress, 2022). In Vietnam, leaders of the information security department assessed that most organizations and businesses have not fully implemented information security assurance plans to minimize risks, creating a big challenge in the digital transformation process. When the

private information of customers is not well secured and protected by the company, this can affect the trust of customers, they may feel that the business is not providing enough assurance, therefore leaving the business and looking for a better choice.

4.2.1.5. Empathy

The research of Mariam Setapa et al. (2020) points out that in four dimensions: Assurance, Communication, Securities, and Empathy, only the last has a positive and significant effect on customer satisfaction. However, the result of the survey indicates that there is no significant positive relationship between Empathy and Customer satisfaction. This finding is supported by Munusamy et al. (2010), whereby they reveal that Empathy has no impact on customer satisfaction.

Firstly, according to Rahman & Safeena (2016), customer needs are the issues that consumers want to resolve through the purchase of an item or service. If HCAV can fulfill any exciting requirements desired by customers, they will be more satisfied. However, general requirements for Halal certification include strict rules regarding the services that HCAV can provide. Procedures for HCA certification must adhere to all applicable local, state, federal, and international laws and regulations. The processes are not meant to discourage or make it difficult for businesses that want to apply for HCA certification, but rather to assure the consistency and quality of certification efforts. Experts and auditors are not permitted to offer consulting services. Therefore, it is unduly if experts of HCA Vietnam provide any services for special / specific needs desired by customers.

Furthermore, HCA will take the necessary steps to halt and prevent any infractions if they are discovered. The HCAV must decide what suitable control actions to adopt in the event that Halal hazards are discovered at any point in the Halal supply chain process. While necessary, any applicable Halal standards or the Standard must be followed when taking control measures. Moreover, HCA commits to refrain from offering consultancy services for building and implementing the audited Halal Assurance/Control system.

Besides, the general requirements of Halal Certification requires HCA Vietnam's experts to undertake auditing and certification procedures with independence, objectivity, and impartiality while adhering to national and international standards. Moreover, auditors and experts are not permitted to do audits for businesses for whom they have performed consulting work, internal audits, or have relationships that can affect the impartiality and objectivity of the audit. Responsibility, integrity, honesty, objectivity, and fairness are labels for personnel in the certification service, especially experts. The nature of the certification service requires HCAV experts to audit without being affected by any internal or external factors. It is totally different in hospitality services such as restaurants, hotels,

or even hospitals where customers can easily feel the warmth, heartiness, and enthusiasm from employees, where customers are gods. Thus, it is more challenging for both HCA Vietnam experts and exporting companies to develop deep bonds with each other. As HCA Vietnam professionals must adhere to rules and specifications, there is a wall between them and exporting companies, which makes it difficult for consumers to experience the empathy of the experts.

4.2.2. Brand Awareness

After carefully gathering information and analyzing it, the authors came to the result that Brand Awareness (as a moderator variable) has an effect on the relationship between two dimensions (Reliability and Assurance) of service quality and customer satisfaction. This outcome is comparable to that of Huang et al. (2017). Huang et al., determined how consumer trust and satisfaction in the business-to-business (B2B) technology service sector are influenced by service quality and Brand Awareness. These results imply that Brand Awareness and service quality, as well as the length of their interactions, have a significant positive impact on customer satisfaction. In addition, several study findings that focus on Brand Awareness have been investigated by several academics and given various research findings.

Successful Brand Awareness demonstrates that an institution's goods and services have a strong reputation in the marketplace and are simply acceptable (Malik et al., 2013). If customers are familiar with and knowledgeable about a certain product brand, they often make decisions regarding that product quickly (Putri & Happy, 2019). According to the Head of Islamic law at HCA Vietnam, one of the most important factors that affect the relationship between service quality and customer satisfaction at this agency now is Brand Awareness. He also strongly emphasized the question: “Among many other competitors out there, what is the most outstanding aspect that makes HCA Vietnam different from others in terms of satisfying customers?”.

First, as the result of a survey, 70.3% of respondents agree and strongly agree, while only 17.1% felt it was normal that among many Halal certification agencies, they would prioritize HCAV. This can be due to the credibility and value of agencies that have been brought to customers while they use services. Moreover, HCA Vietnam is the only organization in Vietnam that has been recognized by many reliable Halal international organizations such as Jakim Halal Certification Program, the GCC (Gulf Cooperation Council) program, the Halal MUI certification program, etc. In particular, by being the only company to have received recognition from many trustworthy worldwide Halal organizations, HCA Vietnam has done well after years of solidly earning the trust of its clients. This agency also succeeded in removing the vagueness of wrongful ingredients and

successfully building up trust with Islamic customers. A product that contains the HCA Vietnam logo will help Islamic consumers feel more secure and satisfied when using it. Therefore, the exporting company will be guaranteed that their products, after being certified by HCA Vietnam, will be eligible for export to Islamic countries and trusted by consumers. Moreover, when a company is doing export procedures for the first time, it needs to have a consular invoice service, i.e., bring a set of valid documents to the consular department for authentication. At that time, the consular side will ask for the authority of a Halal certificate, and it will be valid if it is a certificate issued by HCA Vietnam. From these points of view, it can be concluded that there is a relationship between Reliability and Brand Awareness.

Second, Brand Awareness is an important factor for HCAV to pay attention to. The directors of HCA Vietnam stated that after experiencing their service and feeling satisfied, exporting companies are going to introduce HCAV's service to other companies. Also, two experts from exporting companies said that they knew about HCAV through people from the consular department addressing them. In other words, it is called "word of mouth", which has made up the reputation of HCA Vietnam. Due to this kind of marketing, 86.8% of respondents strongly agree and agree that the market share of HCA Vietnam is more than other competitors. Besides, 72.3% of the answers strongly agree and agree that they will first think about HCA Vietnam when thinking about the Halal certification service in Vietnam. What is more, the result of the survey indicated that 63.4% of exporting companies feel familiar with the brand name "HCA Vietnam", while only 6.5 % strongly disagree.

Lastly, HCA Vietnam always makes strong efforts to develop its Brand Awareness. They constantly make a conscious effort to provide clients with transparent information. According to the director of HCA Vietnam, they always focus on improving the knowledge of employees and educating them to be honest with customers. For instance, HCA Vietnam will decline to provide the service if the country that an exporting company desires to export to is outside of its capabilities or area of expertise. This has proven that HCAV wants to assure that their service will be provided accurately and effectively, which can partly explain why Brand Awareness influences the relationship between Assurance and exporting companies' satisfaction.

In conclusion, it can be expressed that building Brand Awareness is an essential step for a business desiring to advertise its goods and services (Sudirman A., et al. 2021). The degree of customer satisfaction stemming from the recall of using the product will be affected by the level of Brand Awareness (Mahanani & Sari, 2019).



CHAPTER 05



This chapter summarizes the main findings, then suggest some recommendations for HCAV. This chapter will also mention the research's limitations and implications.

Chapter 5: Recommendations and Conclusion

5.1. Summary of findings - Answer the research questions

5.1.1. Summary of findings

Our study was based on the original SERVPERF model of Cronin & Taylor (1992) on service quality factors, to find their impact on customer satisfaction. Specifically, this study aims to find the factors affecting exporting companies' satisfaction on HCAV's Halal certification service. In addition, this study also considers the possible moderate effect of Brand Awareness, based on the model of Ping-Lung Huang, Bruce C.Y. Lee & Ching-Chin Chen (2019).

After conducting a qualitative study, using an in-depth interview method with 7 experts in the field, we gathered much insightful information. The experts especially provide advice about the survey questionnaire in order to make the measurement scale more accurate with the situation of the business.

In the quantitative research, we employed linear regression analysis in SPSS to evaluate our hypotheses about the influence of service quality dimensions on the satisfaction of exporting enterprises. Furthermore, we investigate the role of Brand Awareness in moderating the relationship between service quality factors and customer satisfaction. The final results show that 3/5 service quality factors have a significant impact on exporting companies' satisfaction, namely Reliability, Responsiveness, and Assurance. In which, Reliability is the strongest factor that influences satisfaction, followed by Responsiveness and Assurance. We also found that Brand Awareness positively moderates the relationship between Reliability, Assurance and exporting companies' satisfaction.

5.1.2. Answer the research question

RQ1: What are the factors that influence exporting companies' satisfaction on HCAV's service quality and the extent of it?

According to the result of the quantitative analysis, there are three factors that influence exporting companies' satisfaction on HCAV's service quality. The factors are shown in the table below:

Factor	Standardized Beta Coefficients	Sig.
Reliability	.429	.000
Responsiveness	.318	.000
Assurance	.223	.000

Table 5.1: Factors affecting exporting companies' satisfaction

Based on the standardized beta coefficients, the order of their influence from high to low is Reliability ($\beta = .429$), Responsiveness ($\beta = .318$), and Assurance ($\beta = .223$). In other words, Reliability has the strongest effect on exporting companies satisfaction on HCAV's service quality, Responsiveness is the second strongest and Assurance is the weakest among the three.

RQ2: What are the possible recommendations and implications for HCAV to improve its service quality and enhance customer satisfaction?

The recommendations and implications are mentioned in the following part of Chapter 5.

5.2. Recommendations for each of the five factors

5.2.1. Reliability

According to the survey's results, Reliability is a factor that ranks first in impact on the relationship between service quality and customer satisfaction. HCAV has been accomplishing their job and supporting companies to access the Islamic market. Nonetheless, we still have some recommendations for HCAV to improve their reliability and increase customer satisfaction.

Initially, in Conference on Promoting International Cooperation to Develop Vietnam's Halal Industry conducted by the Ministry of Foreign Affairs and Ministry of Agriculture and Rural Development, the Deputy of the Ministry of Foreign Affairs stated that Vietnam has many favorable conditions to develop in the Halal industry. However, our country does not yet have a common set of Halal standards and organizations that are authorized to issue certification have insistent procedures (Dangcongsan, 2022). As an authorized, global-recognized organization, HCAV can take this advantage to work with government departments to systematize the procedures and standards for all certification-issue organizations to follow. This act can contribute to the reliability of HCAV, build trust for old customers, and attract new customers.

In this conference, the Deputy of the Ministry of Foreign Affairs also considered that since Halal standards and certification are very diverse, there is no global common standard and many strict requirements, the cost of enterprises is relatively large compared to exporting conventional products (Dangcongsan, 2022). Price is one of the factors that determine the competitiveness of businesses and help them attract and retain customers. Since HCAV's customer is diverse and plentiful, HCAV should have more benefit policy in cost for loyal customers such as discounts or promotions. The company should also consider a more competitive price range for new exporting companies since there are over 10 organizations issuing Halal certification these days.

Another point that HCAV can improve is problem solving, which significantly contributes to the reliability of the organization. The Islamic market is still obscure to Vietnam's exporting countries, so by enhancing their problem solving skills, experts from HCAV can answer customers' questions accurately and quickly, thereby improving the quality and time's speed of issuing Halal certificates. Based on the above, the company can organize more training courses on Halal knowledge for businesses and professionals. Besides, organizing courses on soft skills, especially problem solving skills. Another recommendation is to send surveys to companies quarterly or yearly so that HCAV can be aware of their concern about experts' attitudes or knowledge, then reinforce if needed.

5.2.2. Responsiveness

According to the result of the analysis, Responsiveness has a positive impact on the relationship between service quality and customer satisfaction in the case of HCA Vietnam. However, to increase client satisfaction, HCAV must address various shortcomings that they are still facing. Additionally, these authors provide some suggestions that might assist HCAV in enhancing the quality of their services.

Firstly, in terms of time-serving Halal certification service for customers, HCA Vietnam should do more to assure that their customers feel as comfortable as possible. Especially in the process of “informing the certification fee and signing the certification contract”, HCA Vietnam should carefully instruct their customers about these steps of supplying registered information, using appropriate forms of contract. Therefore, the time of document processing would be faster, and time would be saved for both HCA Vietnam and its customers.

Next, HCAV needs to apply modern technologies to better serve its clients. First, HCAV should make use of several technologies that have gained widespread adoption. In particular, HCAV should automate the process of responding to client queries on the Facebook fan page and website by using chatbots. As a result, clients may receive timely replies regarding the service at all times. According to Folstad, A. et al. (2018), software agents known as chatbots converse with users in natural language. As a consequence, chatbots are seen as a potential customer support tool. The level of customer service provided by service providers is crucial for retaining and attracting new clients. In addition, customer service demands a lot of resources because it frequently involves professional customer care staff and highly tailored consumer interactions. Intelligent automation of customer service could make it possible to provide quick and effective assistance while keeping expenses within reasonable bounds.

The use of a chatbot can assist HCAV in automatically responding to clients with the necessary information even when they contact them during off-hours. Due to the continuous advancement of technology, chatbots are integrated with Artificial Intelligence (AI) technology, which allows chatbots to learn from actual conversations with users and get wiser over time. AI chatbots can now handle a variety of activities, including gathering client information, processing orders, and scheduling appointments, in addition to providing information about the goods and services of businesses. Additionally, HCAV might update relevant content on websites or social media platforms like Facebook that pertains to Halal, such as service information, posts, videos, or live streams. As a result, their clients can keep up with this information and have a greater understanding of this field.

Thirdly, in terms of geographic location, HCA Vietnam already has three offices in the capital - Hanoi (the North), Ho Chi Minh City, and Can Tho City (the South). By 2021, according to the Vietnam Journal of Science, Technology, and Engineering, there have been many corporations, large enterprises and over 750 small and medium enterprises (mostly concentrated in the South) have been granted Halal certificates. Therefore, the authors suggest that this agency should launch an office in the Central of Vietnam, which does not yet exist. The reason is mainly because one of Vietnam's main Halal products is seafood and many large companies in the central region produce and export this kind of product. As a consequence, HCA Vietnam can widen its market share, availability of services and be able to reach more potential customers. Moreover, the ministries and branches have been tasked with creating a master plan and policies to aid in and encourage the growth of the Halal business in addition to the government's direction. In the central, such as Thanh Hoa province, they actively focus on, support functional agencies, businesses, and ministries in investment promotion, trade of Halal goods and services, and other promotional activities to capitalize on the potential and strengths of Halal product production and increase the export value of the province's goods to this market (General Department - Office of Thanh Hoa Provincial Party Committee, 2022)

No.	Company name	Location
1	Thuan Phuoc Seafood and Trading Joint Stock Company	02 Bui Quoc Hung, Tho Quang, Son Tra, Da Nang
2	HAI VIET JOINT STOCK COMPANY	167/10, 30/4 Street, Thang Nhat Ward, City. Vung Tau, Ba Ria - Vung Tau
3	Binh Dinh Seafood Joint Stock Company	2 Tran Hung Dao, Hai Cang, Quy Nhon, Binh Dinh
4	Mariso Vietnam Co., Ltd	54 Mac Dinh Chi, Phuoc Tien, Nha Trang, Khanh Hoa
5	Nha Trang Seafood Joint Stock Company	58B Hai Thang Tu, Vinh Hai, Nha Trang, Khanh Hoa
6	Hai Long Nha Trang Co., Ltd	Suoi Dau, Cam Lam, Khanh Hoa
7	Mien Trung Seafood Import-Export Joint Stock Company	1 Bui Quoc Hung, Tho Quang, Son Tra, Da Nang
8	Thong Thuan Co., Ltd	Vinh Tan commune, Tuy Phong district, Binh Thuan province
9	Vietnam Tuna Co., Ltd	Lot A4-A8 Suoi Dau Industrial Park, Suoi Tan, Cam Lam, Khanh Hoa
10	Nha Trang Bay Joint Stock Company	No. 2 Nguyen Thi Minh Khai, Loc Tho, Nha Trang, Khanh Hoa

Figure 5.1: The 10 Central regions - seafood export enterprises in top 45 reputable seafood export enterprises in 2020 (Vietnam Association of Seafood Exporters and Producers -VASEP)

The above figure is a list of ten seafood export enterprises in the central region and all of these companies were ranked in the top 45 Vietnamese reputable seafood export companies in 2020. In addition to the above list, in this region, there are many other businesses also operating in this field. Consequently, this indicated that the central region has very potential businesses to become HCAV's customers, especially in the seafood export sector. With this potential, when HCAV establishes a new office in the Central of Vietnam, customers here will easily approach the company and use its services more conveniently and quickly. Recently, there are many customers with diversified exporting goods in the central area used HCAV services such as GCAP Vietnam Co., Ltd, Thach Bich Mineral Water Factory, Gallant Dachan Seafood Co., Ltd, TS Food Co., Ltd, Quang Ngai Sugar Joint Stock Company, Hoa Thanh Co., Ltd, etc. Therefore, a new office in central would expedite HCAV staff responses to clients and boost client satisfaction with the service. Also, in the step of auditing directly at the customer companies' site in the central region, both auditor and auditee will save a huge amount of time and money due to the shortened distance.

Last but not least, HCA Vietnam has to increase its workforce if it wants to improve customer satisfaction and service speed. In actuality, there are currently between 20 and 25 employees spread across three offices, which is a small quantity when compared to the company's clientele. As a result, HCA Vietnam may occasionally experience a delay in responding to clients and receive complaints. The organization can interact, support, and care for clients more swiftly and efficiently by hiring more professionals and staff. Additionally, workers' job-related stress is lessened, enabling them to operate more productively and better respond to and look after customers' needs.

5.2.3. Assurance

According to the result of this study, Assurance is one of the factors that affect exporting companies' satisfaction on HCAV's Halal certification service. Thus, we recommend a few ways that HCAV can apply to enhance their assurance of service quality.

Enhancing HCAV employees' knowledge and expertise and their customers' knowledge.

As was mentioned, HCAV employees are required to have at least a bachelor's degree in food technology to work for the company. However, it doesn't mean that every employee has enough knowledge on the field, about Halal, Haram, Sharia law, etc. Currently, HCAV has training programs for both employee and exporting companies. The program for employees will last for 6 months only. Thus, HCAV should train its employees more regularly. Regarding customers' knowledge, HCAV already has a training course called "General Perception of Halal standards for Vietnamese businesses" and more information about the Halal, Haram, Sharia law, Halal certification regulations and rules, etc. on their website. HCAV should keep informing more and more businesses about the Halal certification by organizing, providing more courses to businesses or sharing knowledge through more online platforms.

Training employees to provide a sense of security to customers.

Customers want to feel secure when doing business and have a comfortable mind when working with others. HCAV might apply some practices to improve the feelings of their customers. For example, HCAV can train its employees to have a professional attitude when it comes to assurance. Train them to always be ready to serve customers when needed, or to always behave politely towards their customers, and let the customers know that everything is under control. If the employees can consistently do that, the customers will feel secure. In the process of providing Halal certification, customers should always be prompt and fully informed about the progress.

Improving customer information privacy and protection.

Exporting companies highly value the security of customer information and the Halal certification process. As the technology world develops more and more, companies have to keep up with the new technology, especially in data security. Customers will want their data and information to be kept and securely stored by HCAV. Practices to improve information security protect HCAV customers and the company itself from being attacked. Some of the practices that HCAV can apply are educating employees about the importance of data and information security; updating the computer system, using new technology that provides high protection such as data encryption, hardware-based security, and data backup; improving email security since email is one of the main sources of communication in the case of HCAV, by encrypting the emails, using credible archiving solutions, and implementing strong email retention policies.

5.2.4. Tangibles

Even though the Tangibles dimension does not influence the HCAV's service quality, the company should not abandon it but rather pay more attention to this factor to boost the performance of employees as well as improve customer satisfaction. It is worth noting that employee performance is a factor in deciding goal achievement success because employee organization is a factor that can acknowledge effectiveness and efficiency in accomplishing tasks. And physical facilities are used as a tool or means to support them to achieve their work more easily. The better physical facilities at work, the higher employee productivity levels (Pratiwi et al., 2019). Therefore, we recommend that, although customers rarely come to the office, the company should build the workplace cleanly, comfortably, and modernly so that employees have motivation to go to the office daily and provide enough equipment that is either the latest technology or in good condition so that they can work in an advantageous, effective, and efficient way. Furthermore, facilities and equipment is one of the critical factors, containing technology applications such as user-friendly online portals, communication channels for consultation, documentation, etc. (Putri et al., 2021). As it has been mentioned above, HCAV would mostly communicate with customers through online channels; thereby, the company should keep up to date with the latest technology and versions so that the employees can advantageously deliver the best service to customers. Additionally, the use of technology will also enhance the responsiveness dimension, which primarily refers to the speed of response and the accessibility of information.

Lastly, according to Tu et al., (2011), a well-designed uniform can implicitly make a very positive statement about a company's image. It represents employees' professionalism and classification. In addition, the employee's appearance can influence their performance while working. If they are satisfied and confident in their appearance, they can deliver the service better. In this case, it seems like HCAV's clients are quietly happy with the attitude

and appearance of the staff. However, to continue increasing customer satisfaction rates, HCAV should design uniforms for the employees while they are auditing at customer sites so they can look more impressive and professional to clients.

5.2.5. Empathy

Although the results show no relationship between Empathy and Customer satisfaction, HCA Vietnam should not disregard it. Employees' capacity to perceive customers' emotions and enhancement of acceptable interacting behaviors, which value consumers. Empathetic employees that are generally aware of consumer needs change how they conduct around distinct customers, giving each one individualized help and increasing customer happiness. In addition, employees that exhibit empathy increase customer satisfaction and promote enduring loyalty to the service brand..

In order to strategically position itself to increase customer satisfaction, the authors recommend that HCAV can explicitly specify such acts, either on the part of the agency or on the part of HCAV employees. On the other hand, this also necessitates that HCAV comprehends the variety of agency behaviors and selections that are likely to show (dis)respect for customers. The way that HCAV personnel treat customers or how HCAV directly communicates with consumers are two ways that HCAV most naturally demonstrates respect for their customers.

Employees at HCAV may improve the agency's reputation and the perceived and real quality of service by rendering services with improved empathy. By modifying their tactics to attract and keep highly capable, committed, and delighted employees on the one hand, and to excite and satisfy their customers on the other, HCAV managers might also gain from these findings. In a manner similar to how they do with clients, HCAV management should devote more resources to employee development. This will increase the likelihood that the agency will be successful.

5.3. Recommendation for Brand Awareness

According to the result, the relationship between Reliability, Assurance, and the satisfaction of exporting enterprises is positively moderated by Brand Awareness. In general, HCA Vietnam has been performing well in developing, maintaining, and improving its Brand Awareness for many years until now. Therefore, HCA Vietnam should keep maintaining its strengths and uniqueness and make them become a competitive advantage that other agencies cannot compete with.

Recently, HCA Vietnam has done really well at building its image on its own websites. However, they ought to pay more attention to social media as a useful tool for the business

to reach out to more prospective clients. Social media marketing, according to Drury (2008), is the use of currently available social media platforms to raise Brand Awareness among customers on digital platforms through the implementation of word-of-mouth concepts. Based on recent market research (Pletikosa Cvijikj & Michahelles, 2013), companies believe that Facebook is the most tempting social media marketing platform. In Social media has become one of the most widely used communication channels in Vietnam. It is important to note that Vietnam is one of the nations with the fastest-growing digital economies, with over 40 million active social media users and a social media penetration rate of over 43%. (Ly-Le, 2020). It seems like HCAV already has a Facebook fan page, but these posts on it have not been updated for a long time. Therefore, the agency should spend more time on developing HCAV's Facebook fan page. Referring to JAKIM's fan page (Jabatan Kemajuan Islam Malaysia), the HCAV fan page can publish posts on Halal conferences, significant meetings between the HCAV and other Halal organizations, Halal forums, and other topics that relate to Halal business. Building a strong profile on social media can affect the trust and loyalty of clients. Also, the information on the Facebook fan page could help the business reach more customers. Additionally, clients might have more knowledge about the business's operations and events.

On top of that, not just posting Halal topic on the social media to provide knowledges, HCAV can organize many conferences from small to large scale that have topic related to Halal certification, Halal standard, etc. and invite export companies to participate in so that they can deeply understand the Muslim market and the importance of having Halal certification when exporting companies want to penetrate Muslim market and concurrently know the services at HCAV which lead to increase the brand identify of the agency. At the same time, HCAV can enhance its image of good competency and high credibility in the Halal field.

Additionally, based on the previous in-depth interview, most of the experts assume that customers mostly know about HCAV through other people's introductions. In other words, word-of-mouth marketing is one of the powerful forms of advertising that helps HCAV approach more clients. Hence, the company must make sure the service quality is always improved so that the company can enhance its reputation and other exporting companies feel assured and impressed when hearing about HCAV service. Finally, HCAV should not rely only on the competitive advantage, which is the only organization in Vietnam that is recognized by many reliable international Halal organizations, and forget to upgrade and innovate the service day by day.

5.4. Limitations

This study has potential limitations. Firstly, due to the time constraint of this research (from September 2022 to early December 2022), the data collection process might not be fulfilled. For the qualitative study, only seven experts agreed to have an interview. Although saturation has been reached, the small qualitative study sample might provide less objective information than a larger sample size. For the quantitative study, the sample size of 193 exporting companies might not be enough to fully represent all the exporting companies that used HCAV's Halal certification service. However, the results turned out to be highly reliable, with practical implications for HCAV. Secondly, there are few prior studies related to the topic, especially in the context of one Vietnamese agency. This makes our research process face difficulties, such as finding information. Future studies might base on our results to investigate the topic more deeply and develop more objective and practical conclusions. In addition, this study only focuses on one moderating factor, which might be improved by future research to find out more third-factor that affect the relationship between service quality and customer satisfaction.

5.5. Conclusions

This research focuses on identifying the factors affecting exporting companies' satisfaction on Halal certification service quality at Halal Certification Agency Vietnam. Based on the original SERVPERF model of Cronin & Taylor (1992) on service quality factors and the model of Ping-Lung Huang, Bruce C.Y. Lee & Ching-Chin Chen (2019), the authors have proposed a research model with five independent factors: Tangibles, Reliability, Responsiveness, Assurance, and Empathy and one moderating variable - Brand Awareness. After collecting 193 valid responses from exporting companies, the collected data are used for descriptive analysis, reliability analysis, and regression analysis. Thereby, the authors have found 3 out of 5 factors that influence exporting companies' satisfaction with HCAV's service quality, including Reliability, Responsiveness, and Assurance. Along with that, Brand Awareness is also proven to moderate the relationship between Reliability, Assurance and exporting companies' satisfaction. Moreover, the authors make some recommendations for HCA Vietnam to improve and develop its service quality: cooperate with government departments, consider a more competitive price range, improve employee qualities, apply modern technologies or even launch a new office in the central region of Vietnam, etc. Although this research still has some limitations due to its time and scale, the authors hope that this study can contribute to the development of Halal certification services in not only HCA Vietnam but also in the whole of Vietnam.

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Appendices

APPENDIX 1: List of experts who participated in the in-depth interview

No.	Full Name	Company	Position	Work Experience
1	Tran Nguyen Giap	Halal Certification Agency Vietnam	Director General	16 years
2	Abdulsalam	Halal Certification Agency Vietnam	Head of Islamic law	10 years
3	Nguyen Thi Thu An	Halal Certification Agency Vietnam	Records processing specialist	3 years
4	Doan Thi Tuyet	Halal Certification Agency Vietnam	Secretary	12 years
5	Nguyen Thi Hong	Halal Certification Agency Vietnam	Hanoi Branch Director	10 years
6	Do Thi Bich Phuong	An Ti Company Limited	Import/Export Manager	11 years
7	Ho Si Hien	Tam Ngoc One Member Company Limited	Import/Export Manager	10 years

APPENDIX 2: Qualitative Analysis

QUESTIONNAIRE FOR IN-DEPTH INTERVIEWING EXPERTS

Part	Purpose	Content	Note
I	Confirming expert and company information		
1		Greetings and introduction.	
2		Explain the reason for having this expert interview.	
3		Ask experts to record, if allowed, and start to conduct face-to-face interviews.	Carefully asked for privacy
II	Exploring the expert's background		
1		How many years have you worked in HCAV?	HCAV's experts
2		What is your job position in the Halal certification agency Vietnam?	
3		How many years have you worked for ... company?	Exporting company's experts
4		What is your job position in company?	
5		Have you ever directly experienced the service of HCAV? If yes, when was the last time you used this service?	
III	Interview question		
1		There are five factors of service quality: Tangible, Reliability, Responsiveness, Assurance, Empathy. Do you agree with these	For both HCAV's experts

		factors? Do you suggest any other factors besides ours? Why?	and exporting company experts
2		In the five factors of service quality (Tangible, Reliability, Responsiveness, Assurance, Empathy), in your opinion, what is the most/least important factor that affects Customer satisfaction? Why?	
3		What are your opinions about Brand Awareness as a moderator of the relationship between service quality and Customer satisfaction? Do you have suggestions/ recommendations for any other moderator variable?	
4		Do you have any recommendations about the survey questionnaire? Does it make sense to you with clear information that is easy to understand? Is there anything that needs to be modified on this scale?	
Question for HCAV's expert			
1		According to you, when Brand Awareness for HCAV from customers is increased, does the influence of ... (Tangible /Reliability /Responsiveness /Assurance /Empathy) factor on their satisfaction change?	Choose one in five factors
2		During your work at HCAV, which part of the Halal certification process was most challenging to you when dealing with customers? What did you and your company do to satisfy them?	
3		Have you or your coworkers ever received complaints or feedback from customers about the service quality of HCAV? If yes, could you tell us the reason why and how it is solved?	
Question for exporting companies			
4		What do you think about Brand Awareness of HCAV? (<i>Do you/ your company come to HCAV when they want to access the Halal market? Will you remember the name or logo of HCAV right at the moment of mentioning Halal certification service? Do you think HCAV would be the most well-known brand name in terms of providing Halal certification in Vietnam?</i>)	Carefully explain the term "moderating factor" to the interviewees
5		Do you feel satisfied with HCAV's service quality? Have you had a case where you were not satisfied and complained to the company?	
IV The end			
1		Thank you for taking time to share with us	
2		Ask for contact information and availability	

APPENDIX 3: Quantitative Analysis

**SURVEY ON FACTORS AFFECTING EXPORTING COMPANIES'
SATISFACTION ON HALAL CERTIFICATION SERVICE QUALITY - A CASE
STUDY OF HALAL CERTIFICATION AGENCY VIETNAM**

Dear Mr./Ms,

We are a group of final year undergraduate International Business students from FPT University. Our team is currently conducting research on the factors affecting exporting companies' satisfaction on Halal certification service quality - A case study of Halal Certification Agency Vietnam. This research is the result of FPT University's International Business graduation project.

We hope you will take a few moments to answer the questions below. There is no such thing as a good or wrong perspective in scientific inquiry; all of your perspectives will help our research. We guarantee that any information you provide will be kept completely confidential.

PART 1: GENERAL QUESTIONS:

- Does your company have Halal Certification?.....
 - Yes
 - No

- Where does your company register for Halal certification?.....
 - Halal certification Agency Vietnam
 - Other Agencies.....

- Where is your company's headquarters located?.....
 - The North
 - The Middle
 - The Sound

- How many people were employed at your company?.....
 - 100 to 200 employees
 - 200 to 500 employees
 - 500 to 1000 employees
 - > 1000 employees

- What is your company's main export Halal product?.....
 - Food and Beverage (excluding wine and beer, alcohol)
 - Medicine
 - Cosmetics

- Functional food products
- How long has your company entered the export market of Halal products?.....
 - 0 to 5 years
 - 5 to 10 years
 - 10 to 15 years
 - 15 to 20 years
 - > 20 years
- Which country is your main export market?.....
 - UAE
 - Malaysia
 - Thailand
 - Indonesia
 - Singapore
 - Korea
 - Other:...
- How long have you been using HCAV's services?.....
 - 0 to 5 years
 - 5 to 10 years
 - > 10 years
- Which HCAV Halal certification program did you use?.....
 - Jakim Certification Program
 - GCC (Gulf Cooperation Council) Program
 - Halal Mui Certification Program

PART 2: ASSESSMENT QUESTIONS:

Please indicate your level of agreement with the statements below

Please choose the number that matches the following convention:

1. Strongly disagree 2. Disagree 3. Normal 4. Agree 5. Strongly agree

No	Encode	Description	Degree				
			1	2	3	4	5
PART 1: SERVICE QUALITY							
Tangibles							
1	T1	“HCAV has facilities and equipment with the latest technology”					
2	T2	“Physical facilities at the HCAV office are clean and comfortable”					
3	T3	“HCAV has information media such as information counters, instructions, info boxes, information monitors, brochures, suggestion boxes, and others”					
4	T4	“HCAV staff have a neat attire and clean appearance”					
5	T5	“HCAV staff have a professional attitude”					
Reliability							
6	R1	“HCAV can provide service that exactly meet customers' need					
7	R2	HCAV is committed to customers in terms of the value of Halal certification provided”					
8	R3	“HCAV is able to issue halal certification at the promised time”					
9	R4	“HCAV can solve problems experienced by customers”					
10	R5	“HCAV is a reliable agency”					
11	R6	“The cost of halal certification issued by HCAV is within a reasonable range”					
Responsiveness							
12	RS1	“HCAV can provide fast response to customer requests					
13	RS2	HCAV is always willing to provide assistance to customers”					
14	RS3	“HCAV informs customers about service availability”					
15	RS4	“HCAV provides assurance to customers regarding the service time of halal certification”					
16	RS5	“The speed of the halal certification service officer in facing the request of the applicant”					
Assurance							
17	A1	“HCAV employees have extensive knowledge of the services provided”					
18	A2	“HCAV employees behave politely towards their customers”					
19	A3	“Information regarding customer data is kept confidential and securely stored by HCAV”					
20	A4	“HCAV provides a sense of security and comfort to its customers during the halal certification process”					
21	A5	“HCAV is always ready to serve customers when needed”					
Empathy							
22	E1	“HCAV understands and can provide services for special / specific needs desired by customers”					
23	E2	“HCAV employees respect and treat their customers well”					
24	E3	“HCAV cares about the problems experienced by its customers and tries to understand the customer”					

PART 2: CUSTOMER SATISFACTION						
25	CS1	“The service provided was of superior quality”				
26	CS2	“The service provided was excellent”				
27	CS3	“My experience was as good as it was supposed to be”				
28	CS4	“The service was done right the first time”				
PART 3: BRAND AWARENESS						
29	B1	“Among many Halal certification agencies, when compared, you will prioritize to consider HCAV”				
30	B2	“HCAV service office is more than other agencies/companies”				
31	B3	“HCAV service market share is more than other agencies/companies”				
32	B4	“You are familiar with HCAV”				
33	B5	“When you think about the Halal certification service in Vietnam, you will first think of HCAV”				
34	B6	“Halal Certification Agency Vietnam, the name of HCAV is easy to remember”				

Thank you for taking the time to complete our survey!

APPENDIX 4: Figures

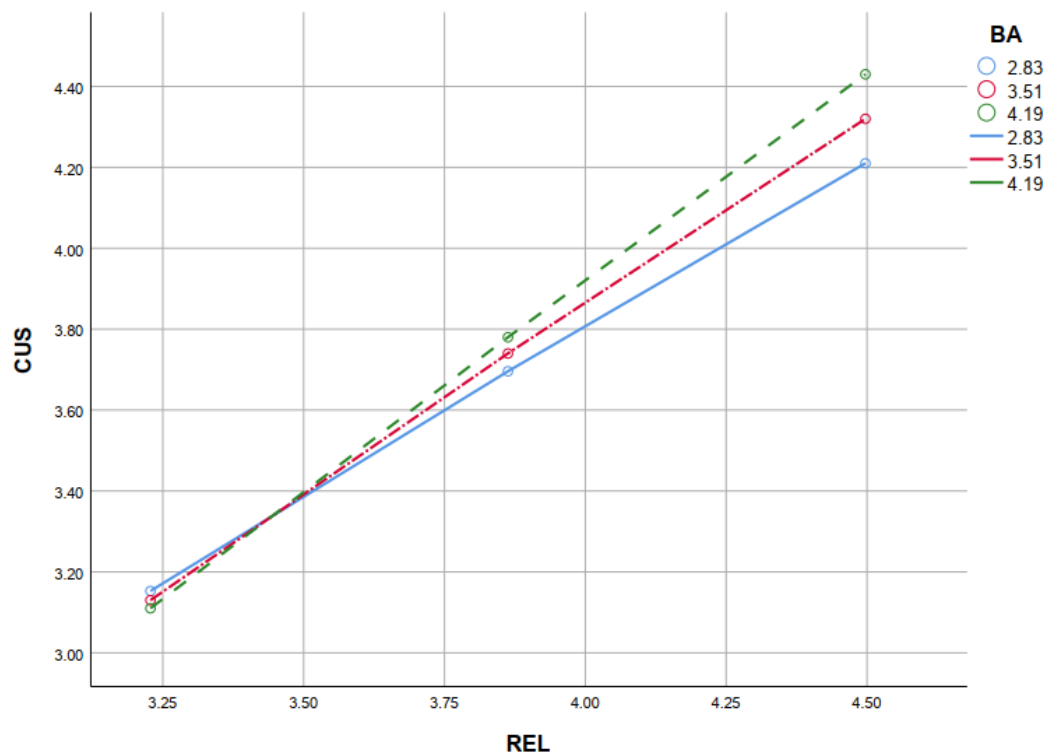


Figure 4.1. Interactive effects of Brand Awareness and Reliability on Customer Satisfaction

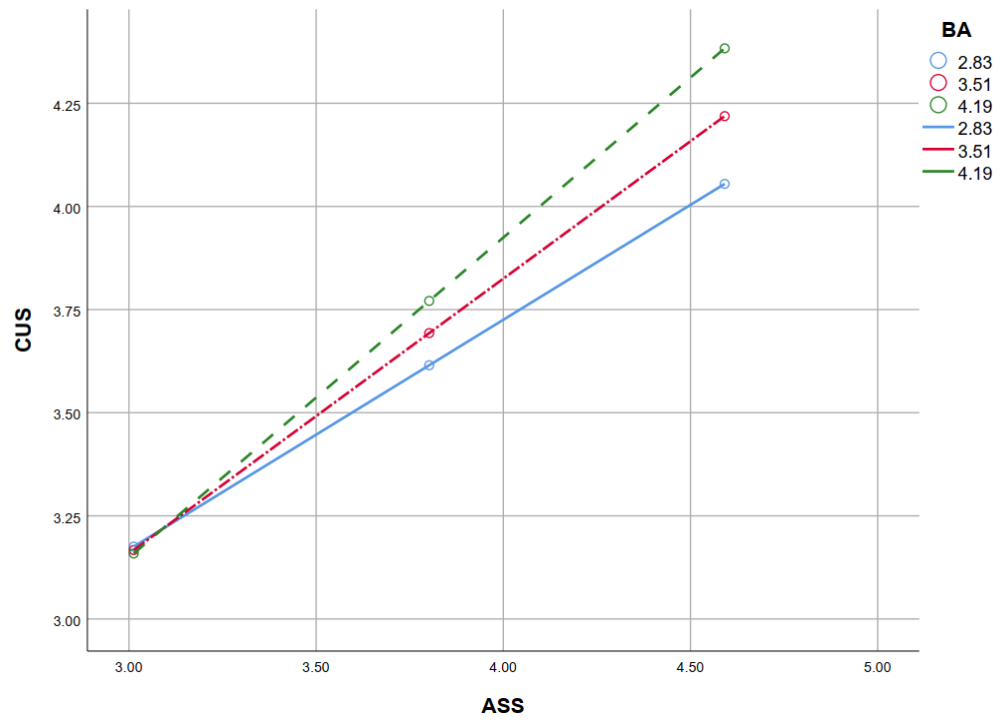


Figure 4.2. Interactive effects of Brand Awareness and Assurance on Customer Satisfaction