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The relationship between warehousing, transportation and halal food exports: an empirical case

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ABSTRACT

This research aimed to analyze the relationship among warehousing, transportation, and Halal food exports. Therefore, the factors kept under consideration in the present research study were warehousing and transportation. To bring the research to a successful end, the research kept quantitative research under consideration. The researcher concentrated on secondary data collection techniques. A close-ended questionnaire based on the 5 Scale Likert Scale was developed with the aim of gathering relevant data. The total number of participants approached to gather the data was 109. Furthermore, the research study came to a successful end with a conclusion that there is a positive significant relationship between warehousing, transportation, and Halal food exports.

Keywords: *Halal logistics, Halal supply chain, Halal warehousing, Halal transportation, SPSS, Regression analysis, Pakistan*

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The relationship between warehousing, transportation and halal food exports: an empirical case

1. Introduction

Warehousing is an essential part of the supply chain management system and distribution. Warehousing is limited to storing items for the general public, with inbound storage functions. A warehouse is a dynamic situation that includes a variety of measures and processes, such as storing, picking, arranging, and directing, and where security and functioning effectiveness can be critical metrics for its efficient operation (Vrysagotis & Kontis, 2011). The Forklift Fleet Management System (FFMS) and Warehouse Management System (WMS) are data systems that have been used to monitor operations and evaluate performance. However, since they cannot monitor the locations of forklifts during routine procedures, important opportunities to improve safety and procedures can be ignored in such information systems. According to the organizational Health and Safety Administration (OHSA), forklifts caused 85 fatalities and 34,900 injuries in the United States last year, with traffic issues accounting for roughly 73 percent of these incidents. The remainder comes from other sources, such as process errors. The advent of Industry 4.0 in the last era has greatly increased the ability to restore warehouse security and operations. Industry 4.0 involves contact and adding devices to the warehouse, as well as the real-time organization of the warehouse's numerous physical objects. This stage will generate quickly processed big data to aid decision-making and, eventually, allow physical arrangements to communicate with each other (Mostafa et al., 2019). The introduction of an efficient localization organization capable of interacting with other data structures, which is the topic of this report, is at the heart of Trade 4.0 in the warehouse.

The supply chain network, transportation alludes to the vehicle of merchandise from one area to another. At the start, as things progress, they show up at the distribution center and proceed with the client's organization, which is conveyed right to their entryway and right to the end client (Akpur & Zengin, 2019; Rashid & Baloch, 2022). In this research, a clear model of transportation is tended to in which a bunch of providers supply different items to a gigantic association as a sole maker. This matter is generally substantial to true assembling troubles like inventory chains for vehicles and home apparatuses, in which merchandise is transported from makers utilizing streets or rail lines since makers are situated close to one another in an alternate area from the creation plant. We expect that the normal conveyance time from makers to purchasers is someday and that all vehicles follow a specific route (Murad, 2018; Rashid et al., 2020). The supplier, irrespective of the other goods, naturally adjusts its own operational decisions. Since orders may have diverse due dates in this situation, suppliers may not make optimal use of vehicle capability because they are needed to convey orders on schedule to fulfill consumer demand. It is also important for manufacturers to overlook the client's deadlines to make maximum use of the vehicles' power (Hashmi, 2022; 2023). It is clear that transportation charges are higher and distribution lead times are longer in both cases, as in a framework where all providers are directed through an end-to-end strategy that controls their activities considering the client's interest rate and stock. The dissemination methodology in a framework brings about more expense reserve funds in transportation while as yet considering provider plans, since grouping choices are produced using the provider set at the same time to help the vehicle's ability to use while as yet thinking about the client's expected dates. The conveyance part of supply fasteners is alluded to as a cross-dock. In the event that numerous more modest shipments are consolidated into full loads, the previously mentioned framework can be described as a fake cross-moor, fully intent on improving the general store network's exhibition (Shaelaie, 2018).

According to the Pakistan Financial Review for the monetary year 2020, animals represent around 11.7 percent of all-out GDP, 60% of the complete farming area, and 3.1 percent of Pakistan's fares. Despite the fact that Pakistan is a significant maker of Halal food, it positions just eighteenth on the planet as far as Halal food goes, serving just 3% of the worldwide market. Pakistan just has a 0.25% portion of the worldwide Halal food exchange worth more than $3 trillion, proposing the requirement for proactive government and private area drives to investigate the genuine capability of 'Made in Pakistan' items and cut out a specialty for itself. With solid interest in China and the Middle East, the

country needs to expand its Halal food creation and prices of semi-arranged meat. The expense of working together is the main barrier to Halal food trade. More exorbitant costs decrease trades as far as worldwide seriousness, as Misbah, the top of the Lahore Chambers of Commerce and Industry (LCCI), portrays. Electricity rates for the Halal food industry in our adjoining nations are sponsored, though they are higher in our country. Essentially, the Halal food industry needs a great deal of crude materials, which are imported. The aim of this examination is to recognize the difficulties related to Halal food fares and Halal stockroom execution. Trials apply to undertakings that require a lot of mental, passionate, and actual exertion to finish effectively. Because of the shortage of Halal coordination's staff in Pakistan, the execution of Halal stockrooms has all the earmarks of being tested. Thus, an examination of the Halal distribution center laborer's information is vital, and the point of this exploration paper is to distinguish a portion of the troubles in the implementation of Halal food sending out stockroom from the viewpoint of the provider. The primary issue with these worries is that, in contrast with ocean cargo, most Halal food exporters don't utilize air transportation services. In contrast with the quantity of merchandise sent out by Halal food trades by means of the ocean, the quantity of items shipped via airship cargo is small. Since Halal's inventory volume is so small, the airship cargo organization doesn't have to focus on carrying out the Halal distribution center, despite the fact that they perceive how basic it is. The key objective of this study is to figure out how warehousing, transportation, and Halal food exports are related. Additionally, the following objectives and the research questions will be narrowed down as a result of research:

RO1: To determine the relationship among warehouse and halal food exports.

RO2: To determine the relationship between transport and halal food exports.

RQ1: What is the relationship between warehouses and Halal food exports?

RQ2: What is the relationship between transportation and Halal food exports?

1.2 Key Definitions

1.2.1 Warehousing

Warehouses are utilized to store merchandise by producers, merchants, exporters, wholesalers, transporting organizations, customs, and others. Warehousing is an essential part of the distribution and supply chain management system. Warehousing is limited to storing items for the general public, with inbound storage functions and outbound shipping and packaging functions (Garcelon, 2018).

1.2.2 Transportation

Transport is the fastest method to move individuals, animals, and items, starting with one area and then onto the next. Transportation in an inventory network alludes to the development of things starting with one area, then onto the next, with the store network starting as items discover their way to the store and finishing with the purchaser's order (Gustin, 1990).

1.2.3 Halal food exports

In Arabic, the word halal food means "lawful or acceptable" in English. In the Quran, the words Halal and Haram are used to contrast. This binary opposition was constructed with a more nuanced grouping known as the "five decisions": mandatory, suggested, neutral, reprehensible, and forbidden. A good or service produced in one country and exported to another is known as a foreign trade export (Ali, 2020).

2. Supporting Theories and Relevant Literature

For many industries in Muslim countries worldwide, including cosmetics, physical and fitness

industries, apparel, and leather industries, Halal logistics is a major concern, for academics and researchers interested in learning more about the Halal supply chain concept and Halal logistics, Halal logistics management is a popular tertiary subject. The majority of producers contract out their logistics to third-party companies or well-known logistics firms. Workers make logistics decisions for the company, particularly their transport and warehouse actions (Abdul Rahman et al., 2017).

2.1 Resource-Based View Theory

The RBV concept is established on the possibility that, when appropriately applied, an association's substantial or immaterial characteristics may conceivably deliver uncommon, surprising, non-comparable, and significant items. An association with a drawn-out upper hand can profit from the capacity to provide this kind of capital. This paper argues that documentation is fundamentally an asset dependent on Barney (1991) the concept of RBV, coordinated by Halal food companies as a means of achieving sustainable good value (Rashid et al., 2024a). Despite competing in an increasingly dynamic, unpredictable, and flooded market. As a result, food manufacturers are looking for ways to differentiate themselves from the rivalry and aim to be the market leader by presenting the customers' restricted products. As a result, food companies place a high priority on obtaining Halal certification, which signals and helps them sell better products to their consumers. To bolster the case, previous research revealed that businesses used various types of documents as a method to achieve expected commercial outcomes (Talib, 2016; Fikru, 2014; Kafetzopoulos & Gotzamani, 2014; Rashid et al., 2024b) clarified that "business experts utilize Halal documentation as an instrument as well as presenting Halal documentation as a method of acquiring proficient believability. SCM research depends on an assortment of restraint strategies (for example, coordination, transportation, and distribution centers) and German hypotheses and procedures are applied to the field of individual restraint. Notwithstanding the way that the hypotheses are unmistakably particular, they ought not to be considered totally disconnected. To clarify how key synergistic partnerships show themselves at the authoritative level, we utilize the RBV hypothesis' market-driven point of view (Hashmi et al., 2021a; 2021b). By executing this hypothesis, the specific aids from this model will most likely not have been coming about, and this examination suggests just a single structure into which this hypothesis can be incorporated. Besides, it expands the business' RBV by a dyad. The relationship involves a joint endeavor of the assets of the two accomplices (for example, time and funds). One of the advantages of a fruitful coordinated effort is the development of hard-to-reproduce shared devices (Stank, 2001; Hashmi et al., 2020a). The augmentation of the organization's RBV to the dyad, and hence what asset skill is characterized at an assessable point, for example, the employable level, is the hypothetical legitimization for deciding the autonomous and double speculations that each firm pays for the association. This RBV perspective gives point of view offers promising knowledge (Fugate, 2009; Hashmi et al., 2020b). Coordination’s exercises are known to incorporate the transportation of products, in addition to warehousing, stockpiling, taking care of, and stock administration. As recently referenced, the Halal inventory network and coordination are presently inviting conservative inventory network development, yet Shariah law implementation prerequisites should be met (Shariff & Ahmed, 2015). As recently expressed, the limit of the coordination arrangement laborer’s ability to affirm the honor of the Halal item from the starting place to the point of utilization is fundamental to the Halal coordination and inventory network's prosperity (Rashid & Rasheed, 2023). As tended to by Shariff and Ahmed (2015). The fundamental standard of Halal transportation is to keep Halal and non-Halal cargo truly isolated during transport. To put it another way, devoted transportation for Halal vehicle gear is expected to keep away from cross-tainting during transport tasks. This likewise alludes to the fundamental rule of Halal stockpiling, which is utilized to secure the actual production of Halal items. During stockpiling and dealing with, the item turns into a non-Halal item. This is due to the danger of cross-contamination, which can occur when a Halal item comes into contact with a non-Halal substance, bringing about the Halal item. As referenced at the start of this conversation, likely pollution in the stockroom may come from laborers dealing with the item or cargo, the instruments being utilized, and conceivably the edge or absence of a devoted stockpiling rack.

2.2 Warehouse and Halal Food Exports

The significance of dealing with the progression of the Halal store network with coordination is upheld by a larger group of proofs. For instance, in transportation, stockroom, and deadly for the Halal business's drawn-out practicality across a few exchanges (Abdul Rahim et al., 2018; Abdul Rahman et al., 2017). The significance of dealing with the progression of the Halal store network with coordination is upheld by a more extensive scope of proof. For instance, to guarantee the drawn-out feasibility of the Halal business, it is important to put resources into transportation, stockrooms, and terminals. An alternate significance of Halal Logistics is the justification for the analysts' mistaken meaning of the word. Halal delivery, Halal warehouse, and Halal retail can be separated into three key component components as indicated by the Malaysian Halal coordination framework's standards. The danger of the Halal ware being messy at the retail rack and in distribution centre stockpiling while the conveyance interaction was in progress was examined by each of the three components; nonetheless, the stockroom labourers who handle the cargo might be polluted. For example, indeed, all pre-owned autos, hardware, apparatuses, and areas are distinguished as possible wellsprings of contamination. When arranging future coordination examinations. Remember Halal coordination, for example, Halal delivery, Halal stockrooms, and Halal exchange. Although an examination investigates the Halal store issue, it centers around the producers' view (Ngah et al., 2015), not from the company himself. Most producers outsource logistics activities, especially transportation and warehouse operations, to an outside company or a well-known logistical provider (Abdul Rahman et al., 2017). As previously reported, Halal logistics and supply chain follow the traditional movement while adhering to Shariah law requirements. Logistics actions are known to include not only moving goods but also storing, managing, and inventory managing (Shariff & Ahmed, 2015).

2.3 Transportation and Halal Food Exports

Halal item requests have expanded locally, and Halal imports have extended in the Muslim and non-Muslim fares and import markets, bringing about an increase in Halal item strategic interest, particularly in the fields of Halal transportation and capacity. At each point in the store network, exercises associated with the assembly and sale of these items ought to follow Shariah rules. This is fundamental to keeping away from defilement during the store network measure. At the end of the day, it is basic to keep up the item's Halal unwavering quality from the starting place to the mark of utilization (Rashid & Rasheed, 2024). Halal is important for Muslim nations, yet for all nations all throughout the planet in all production network exercises. Halal coordination can be portrayed as a technique for moving merchandise through the production network from the starting place to the point of utilization as per Halal principles and allowed under Islamic law, they do, be that as it may, provide stockpiling, distribution centers, transportation, retail, and cold-chain administrations. It's significant that Halal coordination, port administration, distribution center administration, and train activities are altogether significant issues in the Halal inventory network for import and fare. The solicitation for Shariah esteems in the production network can be recorded as Halal coordination and inventory network, and each network associate is liable for keeping up his Halal dependability. This is conducted at the air terminal, distribution center, and in the transportation cycle. It is critical to examine the requests of every one of these vital components of halal coordination (Hamid et al., 2014).

In order to maintain Halal consistency for Muslim consumers and Muslim manufacturers. As a result, numerous parties, especially trade in industry, strongly advocate for the progress of Halal at all phases of the value chain. As revealed in Surah Al Baqarah of the Holy Quran, it is important to confirm Halalan Toyyiban (just the mean and permitted) for usage in relation to the law of Shariah, as long as they are harmless and not harmful. Haram, or non-Halal, which means forbidden or prohibited, is the polar opposite of Halal. Any food and drink that falls into the grey area and isn't clearly labelled as "Syubhah," also known as "doubtful" or "questionable," is placed above the Halal and non-Halal classes. Muslims in this community should abstain from consuming or drinking Syubhah food or beverages until their status has improved.

There is an absence of scholarly investigations that explicitly center around Halal logistics in

stockrooms and transport. This experimental contextual investigation gives a basic comprehension of the execution of the Halal distribution center, distinguishes the difficulties, and furthermore, needs the rules to deal with the Halal item at the stockroom for equal fare and import drives (Abdul Rahim et al., 2018). A model was built based on relevant literature and RBV theory (Kitheka, 2012) to inspect the relationship among independent variables (transportation and storage) and dependent variables (halal food exports). Figure 1 shows the research framework and based on it, the given below hypotheses were proposed:

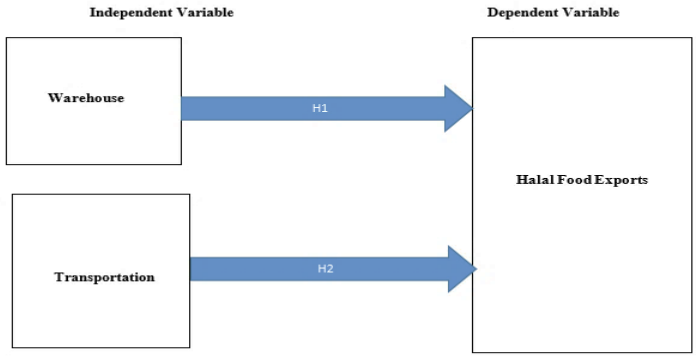

Figure 1: Research framework

Source: Literature

H1: There is an important relationship between warehousing and Halal food exports.

H2: There is an important relationship between transportation and Halal food exports.

3. Research Methodology

In this study of research, the deductive and explanatory methods of information assortment, testing, and exploration concentrate on factors and speculation. The investigation is noticeable and centers exclusively around the associations among Halal food exporters. The data will be accumulated from Halal food exporters' responses. The qualitative study and the quantitative study are two particular types of research study plans (Rashid et al., 2021; Khan et al., 2023a). The point of subjective examination configuration is to gather information. The point of the quantitative examination plan, then again, is to gather information and present it in a quantitative arrangement (Antwi & Hamza, 2015; Rashid & Rasheed, 2022). Further, the qualitative research is having a trustworthy issue (Haq et al., 2023). Therefore, the quantitative method deemed appropriate (Khan et al., 2023b; Rasheed et al., 2023). The investigation intends to focus on the quantitative exploration configuration to discover the relationship among factors, considering the standards of both examination plans (Rasheed & Rashid, 2023). Besides, the specialist utilizes the correlational examination configuration to do the quantitative exploration plan. Since the point of this investigation is to determine the association among warehousing, transportation, and Halal food sent out, it is sensible to expect that a correlational examination configuration will be the most appropriate, as quantitative information will help in determining the association among the factors. Besides, the incorporation of theoretical proclamations legitimizes cautious examination plan choices.

3.1 Sampling Strategy

The expression "target population" alludes to a gathering of individuals who are picked or drawn nearer through the exploration to accumulate significant information that can be used wisely in the research study to analyze the given problem statement (Jackson, 2014). Our target population for this research is more than 140 exporters of Halal food (e.g., poultry, spices, ready foods, beverages, and confectionery). The sample size will be the total number of participants to be considered for gathering

important information to finish the examination effectively. On account of this examination study, information will be obtained from 50 respondents. The method by which data is obtained from target respondents is referred to as the sampling technique. The two most popular sampling methods are probability and non-probability sampling (Antwi & Hamza, 2015; Rashid et al., 2023). Since the researcher's aim is to gather data from Halal food exporters, the current research study employs probability sampling. As a result, random sampling is considered appropriate in probability since it allows the researcher to reach respondents at random (Hashmi & Mohd, 2020; Rashid et al., 2022a). The technique of adaptation is for rephrasing concepts from written literature (Simonet, 2019). In this article, an adapting concept will be used, and 15 questions adapted from previous studies was used to validate the results of this study. Data collection approaches are primary and secondary data collection. In the current research, the primary data collection approach was used. In order to obtain the necessary responses, Karachi exporters shall collect data via a variety of methods, including online, telephone, face-to-face, and e-mail, and data from all the relevant people or divisions of each exporter company (Alrazehi et al., 2021; Das et al., 2021; Rashid et al., 2022b).

3.2 Validity and Reliability Test

According to the technique of adaptation, a true and accurate questionnaire has been developed, and respondents are asked to fill it out in order to disclose the information. Cronbach's alpha is used to determine the questionnaire's reliability (Haque et al., 2021; Khan et al., 2021; 2022). The questionnaire contains the respondent's personal details (name, designation, cell phone number, email address, and education) and demographic details (gender, age, and work experience). The participants are asked questions in Section 2 based on my study variables (transportation, warehouse, and Halal food exports).

4. Data Analysis

4.1 Demographic Analysis

IBM SPSS was used to examine the association among transportation, warehouse, and Halal food exports. Linear and correlation regression analysis was done. The data aims to reveal the descriptive profile of the respondents that have been taken under consideration for the present research. The three main areas of descriptive profile of data focused in the research are the gender, age and education of the respondents.

Table 1: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	79	72.5	72.5	72.5
	female	30	27.5	27.5	100.0
	Total	109	100.0	100.0	

Source: SPSS output

In accordance to the table 1, it is observed that the total number of participants were 109. Out of total 109 participants, 79 participants are male and 30 participants are female.

Table 2: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	36	33.0	33.0	33.0
	26-35	52	47.7	47.7	80.7
	36-50	21	19.3	19.3	100.0
	Total	109	100.0	100.0	

Source: SPSS output

In accordance to the table 2, it is observed that the total number of respondents were 109. Out of total 109 respondents, 36 respondents fall in the age bracket 18 to years 25 years, 52 respondents fall in the range 26 to 35 years and 21 respondents fall in the range 36 years to 50 years.

Table 3: Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undergraduate	34	31.2	31.2	31.2
	Graduate	43	39.4	39.4	70.6
	Post Graduate	32	29.4	29.4	100.0
	Total	109	100.0	100.0	

Source: SPSS output

In accordance to the table 3, it is observed that the total number of respondents were 109. Out of total 109 respondents, 34 respondents are undergraduate, 43 respondents have completed their graduation and 06 respondents are Post graduate.

4.2 Validation of the Model

Table 4: Reliability Statistics

Cronbach's Alpha	N of Items
.951	22

Source: SPSS output

The table 4 given above shows the results of Reliability Statistics. The purpose of reliability statistics is to show extent of the reliability that the responses tend to have that had been gathered from the targeted respondents. In accordance to the present study and observed statistics it revealed that responses gathered from the respondents are excellent as the Cronbach's Alpha is 0.95.

4.3 Relationship Among Warehouse and Halal Food Exports

Table 5: Model Summary Of Warehouse And Halal Food Export

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.861[a]	.742	.737	.41814

a. Predictors: (Constant), Warehousing ,Transportation

Regression Equation: HE= α +β1 (WH) + β2 (TP) +ε -- (i)

Source: SPSS output

The table 5 given above shows the summary of the model of independent variable warehousing and dependent variable Halal food exports. The aim of model summary is to determine the degree of the change that dependent variable have as a result of independent variable. Adjusted R-Square is therefore an important value in the model summary that assists in determining whether the variable is a good predictor or not. In case of the present study, R-Square is observed to be 0.742. The value lies among 0 -+1 it is concluded that model summary for Warehousing is a good predictor as it is greater than 0.

Table 6: ANOVA Of Warehouse And Halal Food Export

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.304	2	26.652	152.436	.000[b]
	Residual	18.533	106	.175		
	Total	71.837	108			

a. Dependent Variable: Halal food exports

b. Predictors: (Constant), Transportation, Warehousing

Source: SPSS output

The table 6 given above is commonly known as ANOVA Table of Regression. The purpose of ANOVA table of regression is to reveal the significance of the model. In case of the present study, it is observed that the sig value is 0.000 that is less than to 0.05. Therefore, the model is considered to be significant.

Table 7: Coefficients Of Warehouse And Halal Food Export

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.803	.189		4.237	.000

	Warehousing	.406	.113	.437	3.582	.001
	Transportation	.413	.114	.443	3.634	.000

a. Dependent Variable: Halal food exports

Source: SPSS output

The table 7 given above is commonly known as the table of coefficient. The purpose of table of coefficient is to reveal the relationship among the two variables. In case of the present study, it has been observed that the sig value is 0.001 (Agha et al., 2021). Therefore, it has been determined that there is a positive relationship among warehousing and Halal food exports.

4.4 Relationship Among Transportation and Halal Food Exports

Table 8: Model Summary Of Transportation And Halal Food Exports

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.861[a]	.742	.737	.41814

a. Predictors: (Constant), Warehousing, Transportation

Source: SPSS output

The table 8 given above shows the summary of the model of independent variable Transportation and dependent variable Halal food exports. The purpose of model summary is to determine the degree of the change that dependent variable have due to independent variable. Adjusted R-Square is therefore an important value in the model summary that assists in determining whether the variable is a good predictor or not. In case of the present study, R-Square is observed to be 0.742. The value lies among 0 -+1 it is concluded that model summary for Transportation is a good predictor as it is greater than 0.

Table 9: ANOVA Of Transportation And Halal Food Exports

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.304	2	26.652	152.436	.000[b]
	Residual	18.533	106	.175		
	Total	71.837	108			

a. Dependent Variable: Halal food exports

b. Predictors: (Constant), Transportation, Warehousing

Source: SPSS output

The table 9 given above is commonly known as ANOVA Table of Regression. The purpose of Anova table of regression is to reveal the significance of the model. In case of the present study, it is observed that the sig value is 0.000 that is less than to 0.05. Therefore, the model is considered to be significant.

Table 10: Coefficients of transportation and halal food exports

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.803	.189		4.237	.000
	Warehousing	.406	.113	.437	3.582	.001
	Transportation	.413	.114	.443	3.634	.000

a. Dependent Variable: Halal food exports

Source: SPSS output

The table 10 given above is commonly known as the table of coefficient. The purpose of table of coefficient is to reveal the relationship among the two variables. In case of the present study, it has been observed that the sig value is 0.000. Therefore, it has been concluded that there is a important relationship among warehousing and Halal food exports. Table 11 shows the summary of hypotheses assessment.

Table 11: Hypotheses assessment summary

Hypotheses	Empirical Result
There is a positive significant relationship among warehousing and Halal food exports	Accepted
There is a positive significant relationship among Transportation and Halal food exports	Accepted

Source: Based on the SPSS results given in table 1 through 10.

5. Discussion

Warehousing and transportation are of worth interest for academics and industries in the Halal foods exports. Many authors worked on the Halal supply chain yet and its impact on the overall business activities and profitability which has not been discussed in detail in the past literature (Hamid et al., 2014). Therefore, the researcher has aimed to focus upon the impact of different factors of Halal logistics on the Halal food exports. The factors that were kept under consideration were warehousing and transportation context (Hamid et al., 2014). Through Shariah law implementation (Mohd Sharif & Ahmed, 2015) there is better chance to maintain the haleness of the product and full fills the need of Islamic community. There are numerous opportunities in the international halal food marketplace, and these opportunities are rising every day as the global Muslim population grows at a faster rate. Non-Muslim customers have begun to demand halal food in addition to Muslim customers. Pakistan is a low-ranking country in the global halal industry. There is a need to raise market awareness among Pakistani exporters. The problem of halal food certification needs to be addressed right away. Furthermore, the halal food market is not solely focused on meat. It includes everything from cosmetics to medications. Pakistani exporters should also make an effort to gain a foothold in this industry. The present study concludes that various factors tend to bring upon relationship among warehouse, transport and Halal food exports (Anwar-Ulhaq, 2014)

H1: There is a positive significant relationship among warehousing and halal food exports.

Hypothesis 1 has been accepted and it concludes that there is a positive relationship between warehousing and Halal food exports. As discussed earlier in the past literature in the view of (Abdul Rahim et al., 2018; Abdul Rahman et al., 2017) warehousing has a vital role in the supply chain management of every organization for the purpose of enhancing the performance of the business. Therefore, the implementation of Halal warehousing will provide great assistance to the supply chain manager to streamline the performance of warehousing in a way through which maximum efficiency is attained.

H2: There is a positive significant relationship among transportation and halal food exports.

Hypothesis 2 has been accepted and it concludes that there is positive relationship between transportation and Halal food exports. As discussed earlier in the past literature in the view of, transportation plays a critical role in spreading halal integrity in effective and efficient halal food supply chains for customers. The halal food industry is a developing and engaging business sector fragment. Muslims are needed to devour halal items, which are those that have been delivered and moved as per Islamic guidelines (sharia). There is a recent fad that requires the halal creation of merchandise, yet in addition, halal stock and appropriation from the assembling site to the customer (Sazali & Ligte, 2019).

As explained earlier in the view of (Garcelon, 2018), warehouse can be defined as a temporary commercial storage building for manufacturers and importers, wholesalers transport businesses, etc. Warehousing as the name indicates the storage of inventory in the warehouse yet simultaneously it also provides assistance and support value-adding to the business process (Abdul Rahman et al., 2017), Also discussed that type of dimensionality in warehouse operation produces hesitancies to the high-level management because they want to consider all the benefits that Halal warehousing given in the implementation. Our study indicates that the degree to which a warehouse can realize technological benefits to maintain the halal warehousing in the daily operations (Akpur & Zengin, 2019). As elaborated in the prior chapter that Shariah law implementation has brought upon a drastic change in the performance of warehousing. Shariff and Ahmad, (2015) explained that warehousing performance can be improved with the help of Halal Shariah laws. This research is critical for Pakistan's food manufacturers, distributors, suppliers, and marketers who exports to international market. This study is initial point for sellers to encourage and raise consumer awareness about the importance of halal food certification.

5.1 Implications, Limitations, and Recommendations

The research study has provided a comprehensive view of one of the major factors of warehousing and transportation on Halal food exports through enhancing the supply chain management system of the business. The factors of Halal food exports have been considered to be an essential element to bring upon a positive growth in the overall business performance. Hence, a great understanding has been attained in the implementation of the halal supply chain laws and how it increases the Halal food exports in the most effective manner.

Limitations in the research study are referred to the hindrances that the researcher aims to face in the completion of this research study that tends to bring upon an impact on the overall success of research. Due to various constraints the researcher was unable to carry out the research study with all the required resources that would bring upon the best results and conclusion. The two major challenges faced by the researcher were time and finance. Due to constraints in time, the researcher of the present study was not able to focus on all the possible techniques that could have brought upon the better result of the research, there for simple technique questionnaire was used for the data collection and investigation. Financial constraints limited the resources of the researcher to research in the most effective and well manner.

The researcher in the present research study provides a handful of assistance and support to various entities as a whole. The supply chain managers shall find the present research of great help as it intends to provide a great understanding regarding the streamlining of the Halal food exports through Halal logistics. In addition to this, future researchers and scholar shall also be benefitted by the researchers who intend to carry out a study in the similar field. Therefore, it is recommended to future researcher and scholars to identify the different dimensionalities of Halal food exports and it intends to bring upon an impact on the entire supply chain management system.

References

Abdul Rahim, S., Mohammad, M. F., Abdul Rahman , N. A., & Mohd Noh, H. (2018). Implementing air cargo halal warehouse: insight from Malaysia. *Journal of Islamic Marketing*, *9*(3), 462–483. https://doi.org/10.1108/jima-09-2016-0071

Abdul Rahman, N. A. B., Mohammad, M. F., Abdul Rahim, S., Ahmad , M. F., & Kadir, A. (2017). Reengineering the Concept of Outsourcing: Air Freight Perspective in Malaysia. *ARPN Journal of Engineering and Applied Science*, *12*(6).

Agha, A. A., Rashid, A., Rasheed, R., Khan, S., & Khan, U. (2021). Antecedents of Customer Loyalty at Telecomm Sector. *Turkish Online Journal of Qualitative Inquiry*, *12*(9), 1352-1374. https://www.tojqi.net/index.php/journal/article/view/5873/4175

Akpur, A., & Zengin, B. (2019). The Concept of Low-Cost Airline Transportation: Definition and Meaning. *Journal of Tourismology*, *5*(1), 73–91. https://doi.org/10.26650/jot.2019.5.1.0014

Ali, M. Y., Abdul Ghaffar, P. Z. A., Kabir, S., & Munir, S. A. (2022). Halal food export and Malaysia's potential: the applicability of the gravity theory of trade. *Journal of Islamic Marketing*, *13*(2), 309-328. https://doi.org/10.1108/jima-01-2020-0019

Alrazehi, H. A. A. W., Amirah, N. A., Emam, A. S., & Hashmi, A. R. (2021). Proposed model for entrepreneurship, organizational culture and job satisfaction towards organizational performance in International Bank of Yemen. *International Journal of Management and Human Science*, *5*(1), 1-9. https://ejournal.lucp.net/index.php/ijmhs/article/view/1330/1399

Antwi, S. K., & Hamza, K. (2015). Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European Journal of Business and Management*, 7(3), 217-225.

Anwar-Ulhaq, M., Zaman, Z. U., & Usman, M. (2014). Global halal food market and opportunities for Pakistan. *International Journal of Education and Research*, *2*(3), 1–8.

Baloch, N. & Rashid, A. (2022). Supply chain networks, complexity, and optimization in developing economies: a systematic literature review and meta-analysis. *South Asian Journal of Operations and Logistics*, *1*(1), 1-13. https://doi.org/10.57044/SAJOL.2022.1.1.2202

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Das, S., Ghani, M., Rashid, A., Rasheed, R., Manthar, S., & Ahmed, S. (2021). How customer satisfaction and loyalty can be affected by employee's perceived emotional competence: The mediating role of rapport. *International Journal of Management*, *12*(3), 1268-1277. https://doi.org/10.34218/IJM.12.3.2021.119

Fikru, M. G. (2014). Firm Level Determinants of International Certification: Evidence from Ethiopia. *World Development*, *64*, 286–297. https://doi.org/10.1016/j.worlddev.2014.06.016

Fugate, B. S., Davis-Sramek, B., & Goldsby, T. J. (2009). Operational collaboration between shippers and carriers in the transportation industry. *International Journal of Logistics Management*, *20*(3), 425–447. https://doi.org/10.1108/09574090911002850

Garcelon, N., Neuraz, A., Salomon, R., Faour, H., Benoit, V., Delapalme, A., Munnich, A., Burgun, A., & Rance, B. (2018). A clinician friendly data warehouse oriented toward narrative reports: Dr. Warehouse. *Journal of Biomedical Informatics*, *80*, 52–63. https://doi.org/10.1016/j.jbi.2018.02.019

Gustin, C. M. (1990). Trends in Computer Applications: *Logistics Information Management*, *3*(3), 21–24. https://doi.org/10.1108/eb007509

Hamid, A. B. A., Ab Talib, M. S., & Mohamad, N. (2014). Halal logistics: A marketing mix perspective. *Intellectual Discourse*, *22*, 2.

Haq, Z. U., Rasheed, R., Rashid, A., & Akhter, S. (2023). Criteria for Assessing and Ensuring the Trustworthiness in Qualitative Research. *International Journal of Business Reflections*, *4*(2), 150-173. Available at: http://journals.pu.edu.pk/journals/index.php/ijbr/article/view/7358

Haque, I., Rashid, A., & Ahmed, S. Z. (2021). The Role of Automobile Sector in Global Business: Case of Pakistan. *Pakistan Journal of International Affairs*, *4*(2), 363-383. https://doi.org/10.52337/pjia.v4i2.195

Hashmi, A. (2022). Factors affecting the supply chain resilience and supply chain performance. *South Asian Journal of Operations and Logistics*, *1*(2), 65-85. https://doi.org/10.57044/SAJOL.2022.1.2.2212

Hashmi, A. R., & Mohd, A. T. (2020). The effect of disruptive factors on inventory control as a mediator and organizational performance in health department of Punjab, Pakistan. *International Journal of Sustainable Development & World Policy*, *9*(2), 122-134. https://doi.org/10.18488/journal.26.2020.92.122.134

Hashmi, A. R., Amirah, N. A., & Yusof, Y. (2020a). Mediating effect of integrated systems on the relationship between supply chain management practices and public healthcare performance: Structural Equation Modeling. *International Journal of Management and Sustainability*, *9*(3), 148-160. https://doi.org/10.18488/journal.11.2020.93.148.160

Hashmi, A. R., Amirah, N. A., & Yusof, Y. (2021b). Organizational performance with disruptive factors and inventory control as a mediator in public healthcare of Punjab, Pakistan. *Management Science Letters*, *11*(1), 77-86. https://doi.org/10.5267/j.msl.2020.8.028

Hashmi, A. R., Amirah, N. A., Yusof, Y., & Zaliha, T. N. (2020b). Exploring the dimensions using exploratory factor analysis of disruptive factors and inventory control. *The Economics and Finance Letters*, *7*(2), 247-254. https://doi.org/10.18488/journal.29.2020.72.247.254

Hashmi, A. R., Amirah, N. A., Yusof, Y., & Zaliha, T. N. (2021a). Mediation of inventory control practices in proficiency and organizational performance: State-funded hospital perspective. *Uncertain Supply Chain Management*, *9*(1), 89-98. https://doi.org/10.5267/j.uscm.2020.11.006

Hashmi, R. (2023). Business Performance Through Government Policies, Green Purchasing, and Reverse Logistics: Business Performance and Green Supply Chain Practices. *South Asian Journal of Operations and Logistic*s, *2*(1), 1–10. https://doi.org/10.57044/SAJOL.2023.2.1.2301

Jackson, M., Hassiotou, F., & Nowak, A. (2014). Glioblastoma stem-like cells: at the root of tumor recurrence and a therapeutic target. *Carcinogenesis*, *36*(2), 177–185. https://doi.org/10.1093/carcin/bgu243

Kafetzopoulos, D. P., & Gotzamani, K. D. (2014). Critical factors, food quality management and organizational performance. *Food Control*, *40*, 1–11. https://doi.org/10.1016/j.foodcont.2013.11.029

Khan, S. K., Ahmed, S., & Rashid, A. (2021). Influence of social media on purchase intention and customer loyalty of generation Y with the mediating effect of conviction: a case of Pakistan. *Pakistan Journal of International Affairs*, *4*(2), 526-548. https://doi.org/10.52337/pjia.v4i2.207

Khan, S. K., Rashid. A., Benhamed, A., Rasheed, R., & Huma, Z. (2023b). Effect of leadership styles on employee performance by considering psychological capital as mediator: evidence from airlines industry in emerging economy. *World Journal of Entrepreneurship, Management and Sustainable Development*, *18*(6), 799-818. https://doi.org/10.47556/J.WJEMSD.18.6.2022.7

Khan, S., Rasheed., R., Rashid, A., Abbas, Q., & Mahboob, F. (2022). The Effect of Demographic Characteristics on Job Performance: An Empirical Study from Pakistan. *Journal of Asian Finance, Economics and Business*, *9*(2), 283-294. https://doi.org/10.13106/JAFEB.2022.VOL9.NO2.0283

Khan, S., Rashid, A., Rasheed, R., & Amirah, N. A. (2023a). Designing a knowledge-based system (KBS) to study consumer purchase intention: the impact of digital influencers in Pakistan. *Kybernetes*, *52*(5), 1720-1744. https://doi.org/10.1108/K-06-2021-0497

Kitheka, S. S. (2012). *Inventory management automation and the performance of supermarkets in western Kenya* (Doctoral dissertation).

Mostafa, N., Hamdy, W., & Alawady, H. (2019). Impacts of Internet of Things on Supply Chains: A Framework for Warehousing. *Social Sciences*, *8*(3), 84. https://doi.org/10.3390/socsci8030084

Murad, D. F., Abbas, B. S., Trisetyarso, A., Suparta, W., & Kang, C.-H. (2018). Development of smart public transportation system in Jakarta city based on integrated IoT platform. *2018 International Conference on Information and Communications Technology (ICOIACT)*. https://doi.org/10.1109/icoiact.2018.8350812

Ngah, A. H., Zainuddin, Y., & Thurasamy, R. (2015). Barriers and enablers in adopting of Halal warehousing. *Journal of Islamic Marketing*, *6*(3), 354–376. https://doi.org/10.1108/jima-03-2014-0027

Rasheed, R., & Rashid, R. (2023). Role of service quality factors in word of mouth through student satisfaction. *Kybernetes*, In press. http://dx.doi.org/10.1108/k-01-2023-0119

Rasheed, R., Rashid, A., Amirah, N. A., & Afthanorhan, A. (2023). Quantifying the moderating effect of servant leadership between occupational stress and employee in-role and extra-role performance. *Calitatea*, *24*(195), 60-68. *https://doi.org/10.47750/QAS/24.195.08*

Rashid, A. & Rasheed, R. (2022). A Paradigm for Measuring Sustainable Performance Through Big Data Analytics–Artificial Intelligence in Manufacturing Firms. *Available at SSRN 4087758*. https://doi.org/10.2139/ssrn.4087758

Rashid, A., & Rasheed, R. (2023). Mediation of Inventory Management in the Relationship between Knowledge and Firm Performance. *SAGE Open*, *13*(2), 1-11. https://doi.org/10.1177/21582440231164593

Rashid, A., & Rasheed, R. (2024). Logistics Service Quality and Product Satisfaction in E-Commerce. *SAGE Open*, In press. https://doi.org/10.1177/21582440231224250

Rashid, A., Ali, S. B., Rasheed, R., Amirah, N. A. & Ngah, A. H. (2022a). A paradigm of blockchain and supply chain performance: a mediated model using structural equation modeling. *Kybernetes, 52*(12), 6163-6178. https://doi.org/10.1108/K-04-2022-0543

Rashid, A., Amirah, N. A., Yusof, Y., & Mohd, A. T. (2020). Analysis of demographic factors on perceptions of inventory managers towards healthcare performance. *The Economics and Finance Letters*, *7*(2), 289-294. https://doi.org/10.18488/journal.29.2020.72.289.294

Rashid, A., Rasheed, R., & Amirah, N. A. (2023). Information technology and people involvement in organizational performance through supply chain collaboration. *Journal of Science and Technology Policy Management*, In press. https://doi.org/10.1108/JSTPM-12-2022-0217

Rashid, A., Rasheed, R., & Amirah, N. A., & Afthanorhan, A. (2022b). Disruptive factors and customer satisfaction at chain stores in Karachi, Pakistan. *Journal of Distribution Science, 20*(10), 93-103. https://doi.org/10.15722/jds.20.10.202210.93

Rashid, A., Rasheed, R., & Ngah, A. H. (2024a). Achieving Sustainability through Multifaceted Green Functions in Manufacturing. *Journal of Global Operations and Strategic Sourcing*, In press. https://doi.org/10.1108/JGOSS-06-2023-0054

Rashid, A., Rasheed, R., Amirah, N. A., Yusof, Y., Khan, S., & Agha, A., A. (2021). A Quantitative Perspective of Systematic Research: Easy and Step-by-Step Initial Guidelines. *Turkish Online Journal of Qualitative Inquiry, 12*(9), 2874-2883. https://www.tojqi.net/index.php/journal/article/view/6159/4387

Rashid, A., Rasheed, R., Ngah, A. H., Mahawattage, P. J., Rahi, S., & Tunio, M. N. (2024b). Role of Information Processing and Digital Supply Chain in Supply Chain Resilience through Supply Chain Risk Management. *Journal of Global Operations and Strategic Sourcing,* In press. https://doi.org/10.1108/JGOSS-12-2023-0106

Sazali, A. M., & Ligte, J. S. (2019). The Importance of Halal Logistics Implementation in Indonesia in Compliance with Domestics and Global Halal Market Requirements. *Jurnal Transportasi Multimoda*, *17*(2). https://doi.org/10.25104/mtm.v17i2.1319

Shaelaie, M.-H., Ranjbar, M., & Jamili, N. (2018). Integration of parts transportation without cross docking in a supply chain. *Computers & Industrial Engineering*, *118*, 67–79. https://doi.org/10.1016/j.cie.2018.02.012

Shariff, S., & Ahmad, N. (2019). Halal logistics operations in MS2400 standards: A literary review. In *Contemporary Management and Science Issues in the Halal Industry* (pp. 77–87). Springer Singapore.

Simonet, G., & Leseur, A. (2019). Barriers and drivers to adaptation to climate change—a field study of ten French local authorities. *Climatic Change*, *155*(4), 621–637. https://doi.org/10.1007/s10584-019-02484-9

Stank, T. P., Keller, S. B., & Daugherty, P. J. (2001). Supply chain collaboration and logistical service performance. *Journal of Business Logistics*, *22*(1), 29–48. https://doi.org/10.1002/j.2158-1592.2001.tb00158.x

Talib, M. S. A., Hamid, A. B., & Chin, T. A. (2016). Can halal certification influence logistics performance? *Journal of Islamic Marketing*, *7*(4), 461–475. https://doi.org/10.1108/jima-02-2015-0015

Vrysagotis, V., & Kontis, P. A. (2011). Warehouse layout problems: Types of problems and solution algorithms. *Journal of Computations & Modelling*, *1*(1), 131–152.