



Revolutionizing the Halal Food Industry: The Crucial Role of Green Halal Supply Chain in Pakistani Companies - A Compelling Theoretical Framework

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Abstract. Food waste is a major environmental issue. Sustainable Halal food manufacturing reduces its environmental impact. This theoretical framework examines the pros and cons of greening Pakistani halal food. To maintain long-term profitability and market competitiveness, it stresses a Green Halal Supply Chain, a sustainable and environmentally responsible strategy. This framework shows how Pakistani enterprises may transform the halal food market by combining sustainability, halal certification, and supply chain management. Pakistan will benefit because other countries will accept Pakistani Halal standards as safe, clean, and environmentally friendly. Thus, the global Halal center relies on the green Halal supply chain. In response to these needs, the goals of this study are: first, to find out what green practices are used to manage the Halal food supply chain in collaboration with the supplier and customer; second, to find out what sustainable performance results from using green practices; and third, to find out if supplier-customer collaboration lessens the effect of green practices on sustainable performance. The goals of this study will be met through a mix of quantitative and qualitative methods. Overall, this study is supposed to develop a model that gives a complete picture of the Green Halal supply chain regarding how suppliers and customers work together to implement green practices. The model can help the business world and policymakers determine what green practices they can work together on and their pros and cons. Pakistan can build its reputation as the world's top Halal hub by joining the Green Halal supply chain.

Keywords: Sustainability; Halal Food; Supply Chain Management; Supplier and Customer Collaboration; Pakistan.

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INTRODUCTION

The food business is increasingly concerned about sustainability. Research published in "New Scientist" revealed that the food business lags behind other industries regarding environmental performance (Basford and Harch, 2014). This is partly because the food sector substantially influences the environment. The food supply accounts for about 20 to 30 percent of annual greenhouse gas emissions and more than 40 percent of liquid and solid wastes (FAO, 2013).

Consequently, the food business still struggles to become more sustainable. To address this problem, food producers must adopt sustainability programs inside their organizations and upstream and downstream of their companies. Consequently, incorporating green techniques into supply chain management has shown to be the most successful (Basford and Harch, 2014).

Agriculture, production, packaging, distribution, consumption, and disposal are all supply chain components for Halal food items. Agricultural production is frequently the major contributor to the environmental effect of food across its entire life cycle, accounting for more than 50 percent of the ecological footprint (Ramankutty et al., 2018). Food processing is the second largest contributor to supply chain impact. Compared to other components of the supply chain, packaging effects are often relatively minimal but may reach up to 20 percent, owing to the energy required for packaging production (Trinh, 2016). The transportation of consumers to acquire food may also have a substantial effect, and the consumption of food by consumers can add to the life cycle impact (Bourlakis et al., 2014).

Halal food satisfies not just the religious obligations of Muslims but also the highest standards of safety, cleanliness, and quality assurance. The demand for industrial food performance worldwide will increase by showcasing green and sustainable food practices. Formalizing and standardizing the Halal standard would bring identity and legitimacy to the whole Halal business and worldwide recognition (Zainalabidin, 2011). Green and sustainable food production has been extensively debated worldwide, particularly in Europe, where several studies have shown the environmental effect. Since then, the European Union has been the pioneer in environmental policy, which has included the development of climate change and the promotion of sustainable development in international sectors, according to Lehner, M. (2015). Due to Europe's participation in these concerns, several non-governmental organizations (NGOs), mainly from developing and emerging nations, have been requested to preserve this topic (Lehner, M, 2015). Although green and sustainable growth in the Halal food business is yet in its infancy, attempts to green the industry would undoubtedly help Pakistan since other nations will recognize Halal Pakistan standards as sound environmental practices.

Given Pakistan's Halal food supply chain, this industry is regarded as the most substantial Halal sector compared to other nations, and its Halal mark is well recognized. However, due to the economic slump, the government has observed minimal investment in the business (Bohari et al., 2017). As a result, it seems compulsory rather than discretionary to make improvements

and add value to our Halal laws and standards. Consequently, this may indicate that the stakeholders are taking aggressive steps toward implementing the Pakistan Halal Global Hub.

Halal businesses' efforts toward sustainable development must be considered seriously to establish a complete environment. Food processing firms capitalize on Pakistan's proficiency in Halal certification and the government's promotional efforts to grab the worldwide Halal market. According to Syed Naveed Qamar, Minister of Commerce, Pakistan is currently on pace to reach global Halal hub status by 2022, supported by a holistic ecosystem (Zulfaka, 2014).

The World Business Council for Sustainable Development found that businesses that incorporate sustainable or green practices have tremendous financial success with lower production costs, improved product function and quality, increased market share, improved environmental performance, better stakeholder relationships, and reduced risks (Schaltegger and Wagner, 2017). Additionally, consumer interest in sustainability is on the rise. The appeal of consumers to sustainable goods increased from around 55 percent in 2008 to 75 percent in 2011 and is anticipated to increase further in the future (Pullman and Wikoff, 2017). Therefore, sustainability's green supply chain approach may be the most significant way to secure a company's worth and the Halal food supply for future generations.

According to Nuhoff-Isakhanyan (2016), supplier and customer relationships are vital to supply chain management and have enhanced corporate success. However, achieving environmental excellence is difficult since all linked supply chain operations need coordination amongst supply chain participants (Vachon et al., 2008). Similarly, Barratt (2004) highlighted that enterprises must work with supply chain members on environmental practices to enhance core capabilities for sustainable growth.

In order to forecast how supplier behavior and green consumer preferences affect the performance of the sustainable Halal Food Supply Chain, this project aims to build a thorough research methodology. The study's findings and results are seen as crucial for the Halal Food business components to improve their sustainability performance, be responsive to sustainability problems, and remain competitive as a world-class Halal Hub.

LITERATURE REVIEW

Food Sustainability and the Halal Food Industry

The Halal Food trade is not solely economically and socially necessary but impacts environmental degradation. Food offer chains square measure chargeable for a significant portion of the ecological consequences caused by menage activities, including, for example, a half-hour of gas emissions, fifty-nine of eutrophication, the thirty-first of activity, and thirty third of ecotoxicity (Chkanikova et al., 2015). These food production, distribution, and consumption systems considerably impact environmental degradation, inflicting the depletion of natural resources and the deterioration of ecosystems, social health, and livelihoods (Ali and Suleiman, 2016). Investors are curious about how the food sector responds to property challenges because stakeholders progressively expect firms to manage and disclose environmental and social impacts as proof of effective company governance. Additionally, stakeholders expect firms to collect and disclose environmental and social impacts as proof that firms square measure effectively governing themselves.

To address these considerations, it is essential to scale back the environmental impact of the Halal business and complete the cycle of the provision chain for a halal product. If this can be done, it will probably improve the worldwide definition of the Halal customary. In line with Sayed Naveed Qamar, Minister of Commerce, Pakistan, Pakistan's accomplishment of the world Halal hub standing by 2022 should be supported by a holistic scheme so our future generations can be protected. In line with a study by the Department of Environment (DOE) in 2018 and discharged that year, the first environmental problems plaguing Asian countries square measure pollution and the improper disposal of solid waste. The food processing sector generates necessary trash yearly and liquid and solid byproducts. Doing away with these waste products, composed mainly of organic stuff that biological processes could break down, causes significant harm to the scheme. In contrast, the discharge of business waste and agricultural practices are usually the first contributors to pollution within the nation (Ali and Suleiman, 2016); alternative factors are also at play.

On the other hand, the current water and air crises have shown that these natural resources must be managed to keep them up for the predictable future. The invention has conferred an additional obstacle for the state: to plan strategies to confirm, regulate, and manage the preservation of air quality and water resources (Afshan, 2013). Additionally, succeeding colossal drawback is the disposal of venturesome and solid waste. In line with TDAP, over

16,500 square garbage measures are made daily. Waste makes up the best quantity of total waste, and it is expected to climb to virtually 36000 tons daily by 2020, thanks to the population increase. The amount of garbage recycled was solely according to 6 June 1944, TDAP (2017), despite the quantity of waste. The standard technique of managing end-of-life things, selling garbage in landfills or burning it in incinerators, continues to be utilized in several developing nations and Asian countries. This can be largely thanks to a scarcity of data and bound technological difficulties.

Because of this, the government of Pakistan places powerful stress on environmental issues in its Thirteenth Pakistan arrangement, titled "Building associate degree atmosphere that promotes quality of life." Maintaining an identical and healthy atmosphere is doable to succeed in the desired level of life satisfaction. The tenth Asian country arrangement outlines the steps to accomplish this objective. They arrange calls on the govt. The present obstacle is persuading native trade participants, like those within the halal food business, to participate in Pakistan's inexperienced property development plan. Asian countries to enact new laws and supply monetary incentives to ensure that each sector of the economy, as well as shoppers and businesses, accommodates the essential steps to deal with the nation's environmental problems. Thanks to this strategy, people's information and comprehension of the inexperienced practices that square measure already in situ and essential for a property future have magnified. The findings of previous studies indicated that adopting environmentally friendly practices in Asian countries continues to be unfavorable (Rohani et al., 2017). Moreover, adopting environmentally friendly practices in Asian countries continues to be comparatively aloof from reaching the extent necessary to apprehend Pakistan's simple arrangement (Chau, 2013). For this reason, any relevant studies square measure essential for the understanding of inexperienced practices and for deciding however unprofessional practices with success enforced, thereby stimulating Pakistan's inexperienced arrange and therefore the development of the property, significantly within the Pakistan halal food trade, for the Asian country to be recognized as an esteemed world halal hub.

As an answer to the issues related to property, halal and property square are currently recognized as potentialities. It is not spare for producers to concentrate on the kind of food made; however, producing food is equally as important. Shoppers everywhere around the globe are getting additionally involved concerning product ingredients, also because of the welfare of stock, transportation, packaging, and waste management. to boot. Several shoppers demand

alimentary and high-quality food choices that modify them to guide their healthier lifestyles. By adding environmentally friendly techniques into the Halal offer chain, there is the potential—if this component is well understood—to enhance many areas of Halal production, contribute to additional property and secure the future regarding food (Karia et al., 2016). Not solely an illustration of conflicting modes of production and consumption, halal has taken on a lifetime of its own in recent years. It is an element of a fast-developing and globalized market that is getting down to bring the issues of Muslim and non-Muslim customers nearer.

However, increasing property within the food business involves the participation of all stakeholders to fulfill the difficulties exhibited by consumers' expectations, limited resources, and, therefore, the norms and rules of international organizations. Consequently, adopting environmentally friendly business practices in the food trade has become progressively widespread. Varied studies have investigated this. However, these practices have affected performance metrics like quality, efficiency, ability, and responsiveness (Bourlakis, 2014). However, there is a scarcity of identification of inexperienced practices enforced by numerous offer chain members, particularly those who manage issues relevant to the Halal food offer chain (Suahna, 2016). Previous analysis has shown that cooperation throughout the availability chain might also create a distinction within implementing certain practices as their associated performance results (Ramanathan et al., 2014).

Conversely, the instructed partnership between partners in offer chain management focuses solely on core operational difficulties instead of those relevant to property challenges. Indeed, property awareness has been integrated into day-after-day living and effective business ways (Pachauri et al., 2007). The concept of property development is becoming an associate degree progressively significant factor in all aspects of company operations and halal corporations. In line with analysis, evaluation is no longer the only real issue deciding competitiveness; instead, factors like health, welfare, and ecological advantages square measure all engaged (Suanawat, 2013). Additionally, business organizations square measure under a massive quantity of pressure as a result of the continued pressure brought on by magnified globalization and magnified competition, also because of the higher demands for safety and security, environmental protection, and therefore the lack of scarce resources, also as social and moral problems (Cetinkaya, 2011).

As a consequence of this, business organizations like Halal business organizations have not solely required to be able to deliver high-quality merchandise on time. However, they must be able to accommodate the varied environmental, economic, ethical, and social pressures placed on their business activities. While there is no systematic coordination between the availability chain's upstream and downstream (Ageron et al., 2012), it is impossible to accomplish these compliances. Therefore, adopting and implementing property initiatives like inexperienced practices ought to address all of the pillars that comprise property (Pietro, 2012). Once it involves the event of property, associate degree correct assessment of property should submit to the method of evaluating the performance of economic, environmental, and social factors.

Nevertheless, the previous analysis on property performance checked out this side of performance in isolation instead of attempting to investigate the collective performances of property factors that embody economic, environmental, and social performance (Andrea, 2013). This provides extra clarity and support for this project, which investigates, however, incorporating environmentally friendly practices within the Halal food offer chain might contribute to property performance. Therefore, to the simplest of our information, only a few studies have analyzed the doubtless property performance outcomes expected from implementing cooperative, environmentally friendly practices at varying stages of the availability chain involving the availability and demand of Halal food. Therefore, this study aims to fill this gap with associate degree lying the kind of collaboration for inexperienced practices enforced within the Halal food offer chain to develop an integrated. Simple Halal offers a chain model towards a world Halal hub and by exploring the performances that square measure aimed toward once putting in place inexperienced cooperative practices among members of the availability chain. The following could be seen as the study's first major flaw. Halal food companies in West Pakistan and other Asian nations have adopted environmentally responsible practices. Many businesses collaborate with their suppliers to promote environmentally friendly production methods. By educating their clientele about the benefits of sustainable practices and providing eco-friendly options, halal food businesses in Pakistan can encourage them to engage in environmentally responsible behavior.

The lack of experience among employees can have a negative impact on the financial performance of companies that produce halal food. It is essential to provide the employees with proper training to ensure they adhere to the correct procedures and environmental regulations. Additionally, businesses can collaborate with their suppliers and clients to promote

environmentally friendly practices and lessen the negative effect on property performance. Uncertainty is the relationship between suppliers and customers who engage in unskilled practices and a reduction in the negative impact on property performance. However, businesses must ensure that their suppliers and clients adhere to sustainable practices to reduce their environmental impact and enhance performance. Halal food businesses in Pakistan can contribute to a more sustainable future by implementing environmentally friendly practices and collaborating with suppliers and consumers.

Collaboration to Ensure Sustainability for the Halal Food Supply Chain

The West Pakistan Standards Pak-Arab Pipeline outlined halal within the offer chain context because the things or actions that are allowable or lawful in Islam in which the quality of operation is suitable and follows the sharia law necessities. Halal refers to the items or activities acceptable or legal in Islam.

In its most elementary type, halal certification ensures that each action is allotted following the law, that they are clean, and that they do not cause the client to suffer any harm. Therefore, by combining the reason for offer chain management with the principles of Halal, the term "Halal offer chain management" is often outlined because the business processes of raising a firm's performance and fulfilling customers' demand by supplying merchandise, services and knowledge that are following the sharia law of Islam. This definition is often found by combining the reason for offer chain management with the principles of Halal. "The method of managing the procural, movement, storage, and handling of materials, parts, livestock, semi-finished or finished inventory, each food and non-food, and connected info and documentation flows through the organization and therefore the offer chain in compliance with the final principles of sharia law," could be an additional elaborated and elaborate definition of the Halal offer chain that Tieman, (2013) provide.

According to the definitions provided, the provider and, therefore, the client represent a significant part of the availability chain and are essential to gathering the potential benefits derived from the availability chain. Zulfakar, Anwar, and Talib (2014) also characterized the Halal offer chain as the standard one. It includes coming up with, executing, and managing distribution and storage. Still, it solely serves Halal-certified things from origin to the positioning of consumption. During a shell, the Halal offer chain needed to include the

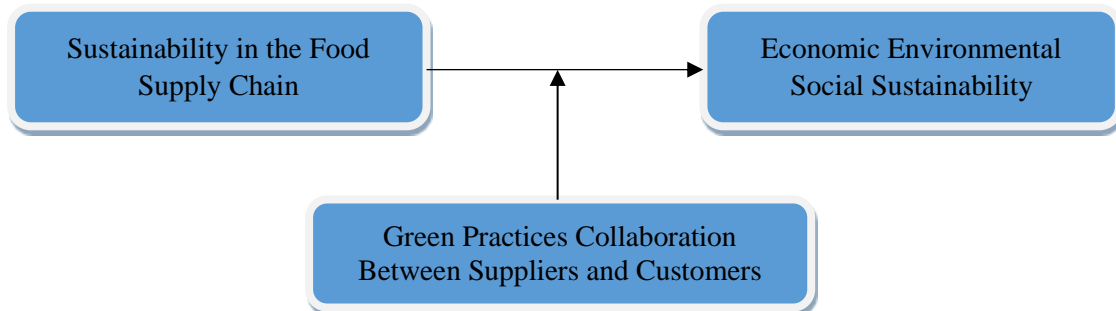
elements of Halal (faith, trust, cleanliness, safety, and absence of something that's not Halal), be practiced by all members of the availability chain, which or not it is respectable and embedded inside the activities that ensue on the availability chain (logistics, purchasing, info management, value-adding, etc.).

Previous studies have unconcealed that the requirement for cooperation between the various players within the offer chain is critical for achievement (Chen, 2017) in response to property challenges. Collaboration throughout the availability chain has significantly increased company performance and property (Pero and Moretto, 2017). This is often in recognition of the growing demand for improved service levels and, therefore, the rising expenses related to supplying things of higher quality. The term "supply chain cooperation" refers to many businesses or organizations' efforts to break a tangle or accomplish a shared objective (Suansawat, 2013). However, offer chain collaboration is tough to manage due to the problems. The alternatives are close to whom and once to collaborate, for what reasons, and how to execute cooperation (Barratt, 2004). Offer chain collaboration is tough to manage as a result of these challenges. Therefore, it is essential to understand the context and the cooperative association between the parties to induce the outcomes that are the fittest for things. There are many various ways in which individuals would possibly work within the offer chain. In line with Barat (2014), there are two primary typologies: vertical, which refers to relationships between customers and suppliers, and horizontal (i.e., with competitors and alternative organizations). Trust, company focus, Intra structure support, and communication are some of the cultural and strategic factors required for a cooperation program to be effective (Ramankutty, 2011). During this explicit setting, Barat (2014) emphasizes the requirement to concentrate "on the restricted range of intimate connections instead of trying to collaborate with everybody." this is often a result of cooperation that needs essential investments of time and energy. In property development, like inexperienced apply, horizontal collaboration within the offer chain is a smaller amount most popular than its vertical counterpart. During this manner, the initiatives to inexperienced the business operations that ensue throughout the availability chain ought to initially look for the collaboration of each provider's key members and the client before increasing it to incorporate alternative parties.

The planned practices were explicitly designed for the food trade and considered necessary factors within the Halal supply chain. The class of environmentally friendly ways utilized in this investigation is made public in Table 1. The ecologically friendly practices listed were

organized into seven categories when gleaned from several literature reviews (Leon et al., 2017; Sharma et al., 2015).

Figure 1. Study Framework



METHOD

This analysis targets the enterprises operative in the Islamic Republic of Pakistan that turn out Halal foods. The management ranks of Halal food companies in the Islamic Republic of Pakistan will be consulted initially for business information. This may be accomplished via a series of non-public interviews with the final managers of those organizations, specializing in the importance of inexperienced practices regarding their property performance repercussions within the Halal Food business. The insights gathered will be accustomed to developing an abstract framework of recognized elements deemed relevant and essential to the analysis. In the future, a form is going to be made. The paper will be refined via a series of pilot tests and a manageable sample size of general managers from Halal food enterprises. The ultimate draft has been delivered to 285 halal food companies operative within the nation; supported by the sample table by Sekaran (2000), the sample size for this analysis is 285. The sample size is judged sufficiently representative of the enterprises functioning within the nation (Sekaran, 2000), permitting the results to be calculated for the Halal sectors in the Islamic Republic of Pakistan.

The current explorative analysis technique aims to check and characterize the association between the variables. A series of questionnaires will collect information to identify and investigate the link between inexperienced Halal food supply chain practices and the companies' property performance. The population of this analysis can incorporate JAKIM-certified halal food companies in Pakistan; in keeping with info, there have been regarding one 126 Halal-certified food enterprises in the Islamic Republic of Pakistan in 2017 (TADP). These

halal food companies were chosen because they represent the essential Halal business phase of sales, employment, and economic output. This analysis can use a proportional stratified sampling approach by selecting an associate degree equal variety of enterprises from every Pakistan state and bunch them in keeping with a vicinity sample style specializing in Halal-certified food corporations. With direct sampling, every 1126 companies would have an associate degree equal probability (probability) of being enclosed in our sample. This study's sample size of 285 companies decided exploitation the table from Sekaran (2000).

This study used a mixed-methods approach to research the extent of property Halal management practices within the Halal food business in the Islamic Republic of Pakistan. It permits additional flexibility, a holistic approach to investigatory approaches, and the potential to combine macro- and micro-level studies. However, this method's primary objective is triangulation, which seeks convergence and confirmation of results from several approaches investigating identical issues. Quantitative and qualitative information will be gathered in consecutive or in 2 components during this strategy. The primary part includes in-depth interviews and case studies with Halal food business professionals. These interviews and case studies aim to assemble information and views from each business and educational community. Then, distribute an even more extensive size survey to Halal food makers across the Islamic Republic of Pakistan. Supported results from qualitative and quantitative investigations will offer a framework for making an inexperienced Halal provide Chain Model for the Halal food business.

RESULTS AND DISCUSSION

According to the results, environmental, social, and economic factors are often called the three pillars of sustainability. They are three of the many components that comprise the concept of sustainability. These factors are interdependent and must be considered as a whole to establish a truly sustainable future. Let's delve deeper into each dimension:

Table 1: Green Strategies in the Food Sector.

Dimension of Sustainability	Green Strategies	
Environment	Preservation of Natural Resources (PNR)	Animal Welfare: The absence of cruelty; safe handling, housing, slaughtering, and transportation.

		<p>Soil conservation: Conservation of forests and species; the bar of erosion and pollution; a bar of the loss of cultivatable land and biodiversity; and the destruction of contamination and waste material agents.</p> <p>Water conservation includes minimizing water usage, victimization water with efficiency, and reusing and convalescent waste products.</p> <p>The realistic style for reprocess and exercise, activity and reprocess, material reprocess and exercise, package reduction, and reusable/recyclable packaging. Decrease trash and unsafe materials, decompose organic waste, manufacture renewable energy or animal feed from waste, cut back disposal prices, complete harm, and recycle. Decreasing energy consumption, preserving power, reducing CO2 and gas emissions, minimizing pollution, and reducing fuel consumption are all aspects of process and transportation that contribute to lowering the planet's carbon footprint.</p>
	<p>Green Transportation, Packaging, and Processing (GTPP)</p>	
	<p>Safety and Health (S and H)</p>	<p>Product quality, food safety, food security, traceability, and openness are enhanced. Encouragement of healthy lifestyles and native food sources. Higher shipping and storage conditions.</p>
Social	<p>Human Rights and Work (W&HR)</p>	<p>Better operating environments that increase motivation and productivity while decreasing absence. Training, education, and progression. Respect for employee rights, gender equality, freedom of association, and safe operating conditions.</p>
	<p>Community</p>	<p>The donation, partnership with non-governmental organizations (NGOs), financial aid, help for the economic development of native communities,</p>

Economic

Green Trading/
Green
Purchasing

instructional practices, health care, job coaching, volunteering, and kid care.

Increasing provider diversity, confidentiality, eradicating fraud and impropriety, transparency, correct shopping for practices (reciprocity, fairness, no power abuse or favorable treatment), provider labor programs, and native sourcing reduces lead times. Environmental and social factors in Provider Choice, monitoring, and Management

Promote Supply
Chain Partner
Support

Sharing of profits with participants within the upstream offer chain, payment of a premium worth, and help and observance within the pursuit of environmental certification (i.e. ISO, 14001 standards). Foster potentialities for funding, info exchange, and knowledge access among partners; facilitate partners' access to markets; facilitate the transfer of data and technology; facilitate the transfer of data and technology.

It is essential to comprehend how these dimensions interact and depend on one another. A neglected dimension can reduce the resiliency of the other dimensions. To meet the current generation's requirements without compromising future generations' abilities, sustainability requires striking a balance between environmental conservation, social welfare, and economic development.

Figure 1 presents a study framework that illustrates the connection being investigated to determine the environmentally responsible procedures that Pakistan Halal Food Companies use. After that, the focus shifts to observing the effect of these environmentally friendly practices on sustainable performance, particularly economic, environmental, and social performance, as well as predicting the moderating influence of supplier and customer collaboration in the Halal food supply chain.

In recent years, sustainability has emerged as a significant concern across businesses, including the food industry. This is especially true for the halal food industry, which incorporates

multiple aspects of sustainability. The findings of this article shed light on the significance of green techniques in the halal food supply chain in Pakistani businesses. These green initiatives can change the business and contribute to a more sustainable future by concentrating on environmental, social, and economic elements.

The environmental factor of sustainability in the halal food sector is critical for natural resource preservation. Pakistani businesses may be critical in preserving natural resources such as forests and animals. This includes mitigating erosion, pollution, loss of cultivable land, and biodiversity loss. Furthermore, guaranteeing animal welfare through proper handling, housing, killing, and transportation is critical. Green transportation, packaging, and processing technologies help lower the carbon footprint and reduce pollution.

The social dimension of sustainability focuses on safeguarding the halal food industry's safety, health, and human rights. Pakistani businesses may improve product quality, food safety, and security while increasing traceability and transparency. These businesses may help their customers' health by emphasizing healthy lifestyles and local food sources. Furthermore, improving working environments that promote employee rights, gender equality, free association, and safe working conditions increase motivation and productivity.

The community aspect of sustainability highlights the role of Pakistani businesses in assisting local communities economic development. Partnerships with non-governmental organizations (NGOs), financial aid, educational practices, healthcare initiatives, job training, volunteering, and childcare programs can all help achieve this. Companies can contribute to the overall well-being of the communities in which they operate by engaging in these activities.

Green trading and green purchasing methods have the potential to yield significant economic benefits. Pakistani firms should strive for supplier diversification, openness, and ethical purchasing methods to eliminate fraud and impropriety. Companies may promote sustainability throughout the supply chain by addressing environmental and social factors in supplier selection and management and encouraging collaboration and sustainable practices by assisting supply chain partners through profit-sharing, premium payments, and aid in attaining environmental certifications.

Green halal food supply chain initiatives can potentially revolutionize the Pakistani industry. Companies can construct a compelling theoretical framework to guide their sustainability initiatives by considering this research's findings. Adopting measures that protect natural resources, assure animal welfare, limit waste and pollution, promote safety and health, respect human rights, support local communities, and engage in responsible trading can result in a more sustainable and ethical halal food sector.

Finally, the findings of this article highlight the critical importance of green techniques in transforming Pakistan's halal food business. Companies may significantly contribute to a more sustainable future by addressing sustainability's environmental, social, and economic components. These measures will assist the sector and address the growing consumer demand for morally and environmentally conscientious halal food items.

CONCLUSION

The Halal food industry in Pakistan has the potential for long-term growth and global recognition. In this theoretical framework, it has been demonstrated that the Green Halal Supply Chain plays a crucial role in driving industry-wide change and resolving sustainability issues. Through the integration of sustainability, halal certification, and supply chain management, the sustainability performance of Pakistani businesses can be enhanced, customer requirements can be met, and global competitiveness can be sustained.

The findings emphasize the need for a holistic approach to sustainability that simultaneously considers environmental, social, and economic factors. From agricultural production to final disposal, the Green Halal Supply Chain outlines a strategy for adopting greener methods at every stage of the supply chain, from agricultural production to final disposal. By implementing these measures, the environmental impact of the Halal food industry can be significantly reduced, thereby assisting in preserving natural resources, reducing waste, and reducing carbon dioxide emissions.

The significance of supplier and customer relationships in advancing sustainable practices was also highlighted in the study. Collaboration and coordination among supply chain actors are crucial for achieving environmental excellence and enhancing fundamental skills for sustainable development. Green practices have the potential to enhance operations in a variety

of ways, including lowering production costs, increasing product quality, expanding market share, enhancing environmental performance, fortifying stakeholder relationships, and reducing risk.

Pakistan is a significant player in the global Halal food market; consequently, this study's findings have implications for that industry. By adopting the Green Halal Supply Chain, Pakistani businesses can improve their image, acquire global recognition, and capitalize on the rising demand for more environmentally and socially responsible food options. The government must support and promote sustainability initiatives and invest in R&D to propel the industry's transformation and solidify Pakistan's position as a global Halal superpower.

Integrating sustainability principles and implementing the Green Halal Supply Chain concept is crucial for the long-term profitability, competitiveness, and environmental obligations of the Halal food industry in Pakistan. When businesses in Pakistan adopt sustainable practices and prioritize environmental, social, and economic performance, they contribute to a brighter future for their industry, nation, and the world.

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