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Consumer Protection in Islamic Jurisprudence: The Case of Genetically Modified Food

تأصيل حماية المستهلك في الفقه الإسلامي: الأطعمة المعدلة وراثياً أنموذجاً

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ABSTRACT

The goal of this research is to examine how Islamic jurisprudence can provide answers to questions about genetically modified foods by combining Islamic Fiqh and scientific knowledge to protect consumers from their harmful effects. The research problem arises from the fact that consumers, in an Islamic state and elsewhere, face similar issues that must be addressed by governments and individuals. Islam, as a religion, provides a comprehensive framework for protecting the rights of consumers. Islamic jurisprudence offers guidelines for creating an environment where consumers› interests are optimally protected. These guidelines are based on the divine principles established by Allah, who has promised believers rewards in both this world and the Hereafter for adhering to these principles. Evidence indicates that genetically modified foods may be harmful; therefore, the study followed an inductive and deductive approach to achieve its objectives. According to Islamic Jurisprudence, if any food could cause harm to human health, it should be labelled as such to inform consumers. Customers ought to have the ability to assert their right to choose.

Keywords: Islamic jurisprudence, consumer protection, genetically modified, harm

الملخص

يهدف البحث إلى معالجة أضرار الأطعمة المعدّلة وراثيّاً على المستهلك في ضوء المعرفة العلميّة والفقهيّة لمستجدّات التّطوّر العلميّ لحمايته من الآثار السلبيّة لتلك الأطعمة. ويطرح البحث إشكالية مدى ضرر تلك الأطعمة على صحة المستهلك في العالم بعامة و في البلاد الإسلامية بخاصة، وهي من الأهمية بمكان على مستوى الفرد والجماعة. وقد وضع الشّرع الحنيف ضوابط لحماية المستهلك، وعد الله سبحانه وتعالى من يتبعها من عباده بالثواب والأجر. ومن هذه الضوابط حمايته بدفع الضّرر وأسبابه ، كضرر الأطعمة المعدّلة وراثيّاً؛ لخطورتها على الصحّة، متّبعاً المنهج الاستقرائي باستنباط الأحكام من أدلّتها، معتمداً على القواعد الفقهيّة التي توجب حماية المستهلك باتّباع أساليب الاحتراز، والتّوعية بوضع علامات تعريفيّة تنبيهيّة للمستهلك ،دالّة على تلك الأطعمة، مع احترام حريّة الشّراء.

الكلمات المفتاحية: أصول الفقه، حماية المستهلك، الأطعمة المعدّلة وراثيّاً، الأذى

1. Introduction

Consumers in Islamic states and elsewhere face similar problems that need to be resolved by governments and the individuals themselves. These problems may include a lack of awareness about consumer rights and the absence of concrete national legislation, national policy and a strong judicial system to enforce piecemeal legislation. Based on a scientific approach, this article discusses the dimensions given by Islam to establish consumer-friendly environments in markets and to stop trade practices that affect consumers or violate their rights. Specifically, available food-industry consumer protections are highlighted.

With respect to religion and food, food should not be consumed specifically for nutrients but as part of spiritual activity that indicates a strong association with the rest of the creation of God. Several methods are used to extensively produce food ethically; however, some practices are now turning food into something life-threatening. Currently, our diet, in some way or another, includes genetically modified food (GMF). There has been sufficient public and scientific debate to show that GMF and genetically modified organisms (GMOs) cause long-term environmental and health issues (Kotze, 2016; Maghari & Ardekani, 2011). The case that has been argued for GMF is that it offers nutritious food and ensures that global food demand is met. The current research is based on evidence that indicates that GMF causes various toxic effects in humans. Hence, it is essential to determine whether these types of products should be consumed (Seralini, 2020).

2. Objectives

By combining Islamic Fiqh and scientific knowledge, this paper focuses on how Islamic jurisprudence can provide answers to issues involving GMF to protect consumers from the harmful effects of these foods.

3. Study Questions

The study attempts to answer the following questions:

- How does Islamic jurisprudence provide consumer protection?
- What are the risks of GMF?
- What are the opinions regarding GMF consumption?

4. Previous Studies

The most relevant research topics that discuss GMF and consumer protection are cited in the text; of these, the most important studies are:

- Elbashir (2017): The objective of this study was to review the protection of consumers' rights in the Quran with an emphasis on melamine-contaminated foods. Therefore, the reference is cited to cover how the Quran preserves the rights of consumers.
- Kotze (2016): The objective of this study was to review GMF and collective sin. This was a comparative Christian theological, ethical reflection. The research considered GMF as harmful and a sin on the part of consumers.
- Maghari and Ardekani (2011): The aim of this study was to discuss the social concerns about GMF. This research considered GMF an important social issue.

5. Research Methods

In order to achieve the objectives of this article, the research methodology followed the inductive and deductive approaches. The Quranic verses and Hadeeth on the protection of human life were collected. Then, through Quranic exegesis, a scientific knowledge opinion on the use of GMF was reached based on the research questions.

6. Research Plan

The plan contained an introduction, research terminology, four themes, a conclusion and references. The themes were as follows:

- Religion and the Protection of Human Life.
- Consumer Protection in the Quran.
- GMF and GMO Risks.
- GMF Consumption-Related Opinions.

7. Research Terminology

The following terms were used in the study:

Genetically modified (GM) foods: are foods derived from organisms whose genetic material (DNA) has been modified in a way that does not occur naturally, e.g. through the introduction of a gene from a different organism.

Consumer protection: is the practice of safeguarding buyers of goods and services and the public against unfair practices in the marketplace.

Islamic jurisprudence (Fiqh): is concerned with the way in which the rituals and laws of religion are derived from the Quran and the Sunnah.

Religion and the Protection of Human Life

Various religions, including Islam, place duties upon the people regarding the protection of human life. These duties are as follows:

- The body or soul of man is not owned by him but has been given to him temporarily. Hence, it is forbidden to hurt or torture oneself or carry out destructive or reckless activities. For God, the sacrifice of life is permitted. Allah mentioned in the Quran that «for

those who believe, must not be unjust in eating their property but should be traded with each other, through mutual consent and one should not commit suicide as Allah is merciful towards you» (Surah An-Nisa, 4:29). Islamic law (Maqasid As-Shariah) preserves the essential five objectives of life (Al-Shaṭibi, 1997), which are religion, body, intellect, progeny and wealth. For instance, prohibited foods are allowed for those who are starving to death. According to Allah, «God is merciful and forgiving to those who may be forced to eat the forbidden food as they may be dying of hunger and do not intend to do wrong» (Surah Al-Ma'idah, 5:3). Within Islamic jurisprudence, this is stated as the 'law of necessity', which permits the forbidden.

- Appropriate nutritional care should be taken by man to ensure that the minimum need for good health is satisfied. One should not deprive oneself of drink, food or appropriate care that has been allowed one. According to Allah, «the beautiful things that have been produce for His servants should consumed if they are halal. They are present in this world specifically for those who are believers and would be exclusive on Judgments Day» (Surah Al-A'raf, 7:32) Hence, a detailed explanation is being given to those within an understanding.
- "Prohibition and Elimination of Harm, the Legal Maxim of Islamic Law, deals with the prohibition of harm and injury and elimination of hardship" (Al-Shaṭibi, 1997, p. 31). This maxim encompasses many subjects in Islamic law and is widely applicable to any matter relating to the occurrence, avoidance and elimination of harm when carrying out obligatory duties (Muhsin et al., 2019). Of course, the rules of Islamic jurisprudence are laid down to attract benefits and eliminate hardship in order to protect the five necessities of life recognised by Islam. According to Islamic jurists, harm is defined as the violation of the legitimate interests of one's own or of others caused by the infringement of rights, abuse of power or negligence on the part of others.

Consumer Protection in the Quran

The Quran declares that «God has permitted trading» (Surah Al-Baqarah, 2:275). Moreover, the Quran spells out principles, both of a general and a specific nature, in respect of the implementation of business ethics.

A Muslim trader, while engaged in business, is dealing at the same time with two parties: his fellow humans who are buying or selling and the Creator Allah, who enters every business transaction by providing a relevant directive to maintain justice and equity in the said transaction. Muslims are required to behave Islamically in their business dealings because Allah Himself is witness to their transactions: «In whatever business you may be—and whatever deed you (mankind) may be doing— We are Witness thereof when you are deeply engrossed therein» (Surah Yunus, 10:61) Consumer protection and business ethics are amongst the more important aspects of human beings' dealings with each other. In Islam, the rights and obligations of an individual towards others are stressed heavily. Where violations occur, the prerogative to forgive or otherwise is vested in the affected individual. Allah's forgiveness or otherwise, in such cases, is dependent on the will of the individual sinned against; if he does not forgive, Allah will punish the defaulter. Therefore, it is imperative for individuals to display fairness in trade and commerce as well. There are numerous Quranic injunctions that emphasise the importance of righteous dealings in such matters. For instance:

The Quran provides ample evidence that Islam not only permits but also encourages believers to engage in honest and mutually beneficial trade. The legality of trade implies that a Muslim is free to make any kind of approved transaction. Islamic code of ethics provides general guidelines for both daily life as well as conducting business. Allah says, «O ye who believe! Eat not up your property among yourselves in vanities: but let there be amongst you traffic and trade by mutual good-will: nor kill (or destroy) yourselves: for verily God hath been to you most Merciful» (Surah An-Nisa, 4:29).

The Quran is very clear in its warnings that all actions and transactions, even intentions and deliberations, are vigilantly monitored and accurately recorded by God and that humans will be punished or rewarded accordingly. Hence, the Quranic concept of true loss and gain in business encompasses both parts of human life. In Islam, a consumer is expected to behave rationally while satisfying his needs; the balancing principle in Quran is «Those who, when they spend, are not extravagant and not niggardly but hold a just (balance) between those (extremes)» (Surah Al-Furqan, 25:67).The Quran instructs Muslim consumers to probe and verify any given statement or information before making a decision or taking any action. It advises them to investigate any commodity before purchasing it. This must be done even if there is no specific reason for caution in order to ascertain whether the commodity is permissible (halal) or not permissible (haram) «Made lawful to you this day are al-tayyibat» (Surah Al-Maidah, 5:5).

The importance of accuracy in terms of weights and measures is stressed in the Quran many times. The believers are commanded to weigh and measure in full without the slightest diminution or else face dire consequences. According to the Quran, the mission of all the prophets was to keep the balance straight and to uphold justice. Allah says, «Give full measure when ye measure, and weigh with a balance that is the most fitting and the most advantageous in the final determination» (Surah Al-Isra, 17:35) and «To the Madyan people (We sent) Shu'ayb, one of their own brethren: he said: "O my people worship Allah: Ye have no other god but Him. And give not short measure or weight: I see you in prosperity, but I fear for you the Penalty of a Day that will compass (you) all round» (Surah Hud, 11:84). The Madyan people were ultimately destroyed by Allah for using improper weights and measures.

Islam prohibits any kind of fraudulent transaction, whether during a purchase or a sale. The following Hadith exemplifies how the Islamic moral code views deceptive business practices:The Messenger of Allah peace be upon him happened to pass by a heap of eatables (corn). He thrusted his hand in that (heap) and his fingers were moistened. He said to the owner of the heap of eatable (corn), "what is this? Messenger of Allah, these have been drenched by rainfall. He (the Prophet) remarked why did you not place this (the drenched part of the heap) over other eatables so that the people could see it? He who deceives is not of me (is not my follower)" (Muslim, Eman book, 1955, Hadeeth 102).

GMF and GMO Risks

The health implications of GMF and GMOs in agriculture have been analysed in recent times, and there has been much public and scientific debate on the topic. Many discussions have focused on the transgene insertion process that is used to attain GMOs, but genetic engineering techniques (or mutagenesis techniques) that have recently been developed have also been included in this debate. These techniques include herbicide tolerance, for example, Roundup tolerance in soy and insecticide tolerance in maize and Bacillus thuringiensis corn (Seralini et al., 2011). There are various concepts that need to be analysed in order to understand if GM plants provide recombinant DNA or then products of animal tissues are present within the derived protein. Hence, there are several issues that need to be considered: (i) the reaction caused by recombinant DNA and protein at the time of processing and ensiling animal feed; (ii) the reaction caused by recombinant DNA and protein within the animals' gastrointestinal tract due to this GM feed; (iii) the potential absorption of DNA-digested pieces or protein into animal products or tissues; (iv) the biological functionality potential of the absorbed DNA and protein fragments. There is an extent to which plant DNA fragments would survive digestive processes (Duggan et al., 2003; Einspanier et al., 2004), and the genes would also move into the milk and the blood, suggesting a likelihood of genes being incorporated from ingested GMF. The hypothesis of gene transfer through milk can be supported by plant DNA detection within the organs and tissues of young animals that have been nursed (Tudisco et al., 2010). Several animal studies have indicated serious health risks associated with GMF. These include mutation around the insertion site (Wilson et al., 2006), transfer of DNA into human gut bacteria (Netherwood et al., 2004), development of stomach lesions in rats fed GM tomatoes, proliferative intestinal cell growth in mice fed GM potatoes (Fares & El-Sayed, 1998), indications of toxicity in rats fed GM corn (Pusztai, 2002) and reproductive failure and infant mortality in mice fed GM soy (Prescott et al., 2005). Additionally, Roundup (administered over a two-year period in drinking water at 0.1 ppb) has been confirmed recently through metabolomic, proteomic and transcriptomic assessments to have long-term effects, specifically in terms of liver and kidney toxicity (Mesnage et al., 2015; Mesnage et al., 2017). Pesticide consumption also leads to sex hormone disorders and breast tumours (Seralini et al., 2011). Moreover, it has been indicated that GMOs cause a form of metabolic disturbance (Mesnage et al., 2016). Furthermore, pituitary neoplasia has been shown to have an increased presence, along with sex hormones and estradiol disorders. and the female rat thyroid was also present who were given the maize that is genetically modified (Seralini et al., 2011). In the US, concerns about potential allergy risks have arisen from GM food crops. A 2S albumins gene from the Brazil nut was introduced into a soybean cultivar for the purpose of nutritional enhancement. The transgene products, however, were identified to have potential allergy risks for humans, especially for those with Brazil nut allergies (Delaney, 2015; Moreno & Clemente, 2008). Concerns about the Cry9C protein, a type of insect pest resistance protein from bacillus, has also arisen due to a higher resistance to heat and a possibly prolonged digestion time (Wiedinmyer et al., 2000). Rats exposed to transgenic potatoes or soya had abnormal and immature sperm; cows, goats, buffalo, pigs and

other livestock grazing on Bacillus thuringiensis maize, GM cottonseed and certain biotech corn showed complications that included early deliveries, miscarriages and infertility, and many animals did not survive (Fares & El-Sayed, 1998). Foodborne diseases such as soya allergies have increased over the past 10 years in the USA and the UK (Daniel, 2004), and an epidemic of Morgellons disease in the US has been recorded (Ho & Cummins, 2008). There are also reports of hundreds of villagers and cotton handlers having developed skin allergies in India (Bernstein et al., 1999). Recent studies have revealed that Bacillus thuringiensis corn expresses an allergenic protein that alters the overall immunological reactions in the body (Pasini et al., 2002; Vazquez-Padron et al., 2000).

GMF Consumption-Related Opinions

Considering these dangers, the individual nations' biosafety regulations need to include the testing of GMO feasibility within a controlled environment to ensure there are no risks. Government organisations and agencies like the WHO and FAO are responsible for food safety. These agencies are asked to deal with the safety aspects of GMF. Within the current research, the religious concepts of GMF are focused upon. There are some Muslim scholars who believe in the change concept (European Council for Fatwa and Research, 2013), through which unlawful food could be manipulated to become wholesome and permitted. Hence, the question arose regarding whether changes occur due to the plant-to-animal gene transfer. Additionally, it was not clear if this gene would alter the recipient animal. According to the data presented, the gene survives the digestive system processes, and physiological barriers are crossed, which means that the gene can reach the muscles and appear within the milk. Hence, the aforementioned questions have been answered in the affirmative. Istihala, meaning a change concept or a state change of an unlawful toxic impurity into a pure lawful substance, has not occurred; the gene is most likely attained by the consumer. If people are harmed by this gene or the food containing the gene, then it is considered harmful and is, therefore, prohibited. Consequently, scholars are obligated to educate consumers regarding these issues.

For consumers, there may be no basis to state this food as prohibited, as they would not be interested in consuming it as it would make them feel unsafe or uneasy. GMF wouldn't be stated as unlawful (haram), but individuals must be provided with the right of choice, and related labels should be added to GMF. The legal tolerance threshold for conventional food and feed products has been set at 5%. Australia, New Zealand, South Africa, Brazil and China have tolerance thresholds at 1%, while in the European Union (EU), if a commercial product contains more than 0.9% of GM material, it must be labelled as a GM product in order to inform consumers (Ramessar et al., 2010). Some EU member countries have established regulations and guidelines for the voluntary labelling of animal products as non-GM by suppliers so that consumers can choose products that have no GM material directly used in their production (Venus et al., 2018). However, none of these guidelines exist in developing countries. The Hadith (saying of the Prophet Muhammad, peace be upon him), "no harm shall be inflicted or reciprocated", which forbids self-harm and harm to others, is one of the five Prophetic traditions around which the entire body of Islamic jurisprudence revolves (Ibn Rajab, 1408, 2/210, Hadeeth 32). This Hadith prohibits all types of harm, no matter if inflicted or reciprocated, including self-harm, harm to others and the cause of harm. This Hadith is also included within the five universal legal maxims (al-qawaʿid al-fiqhiyyah), which embody the crux of major Islamic principles and instructions of the Shariʿah, and as a result, enables jurists to extract legal rulings on new topics (Ibn Nujaym, 1405). The legal maxims on the elimination of harm in Islam are well acknowledged regardless of cultural diversity or regional differences because the consequences of harm are globally detested. Against this background, it is important to address how to combat this GMF issue from a juristic approach. In Islam, harm elimination is an obligatory duty of every capable individual, while inflicting harm is stringently prohibited (Elbashir, 2017). Therefore, GMF labelling should be introduced to ensure that consumers are aware of what he/she has purchased. Islam fully agrees with the approach that this issue should be taken further to include the regulatory committees of governments and everyone responsible for the food chain that leads to the production of GMF. Consumers have the right to be protected.

8. Conclusions

Keeping the above-mentioned studies in mind, the conclusions presented are as follows:

- Within the Quran, particular duties have been stated by Islam and under Islamic jurisprudence that are practised by all in relation to harm and the protection of human life.
- Islamic jurisprudence indicates that if a type of food is considered toxic to human health, it is harmful

and prohibited, and it is necessary to take steps to ensure that humans are protected from this food.

- Compelling evidence of the harmful effect of GMF is available in the literature.
- GMF labelling should be introduced to ensure that consumers are aware of what he/she has purchased. Consumers have the right to be protected.

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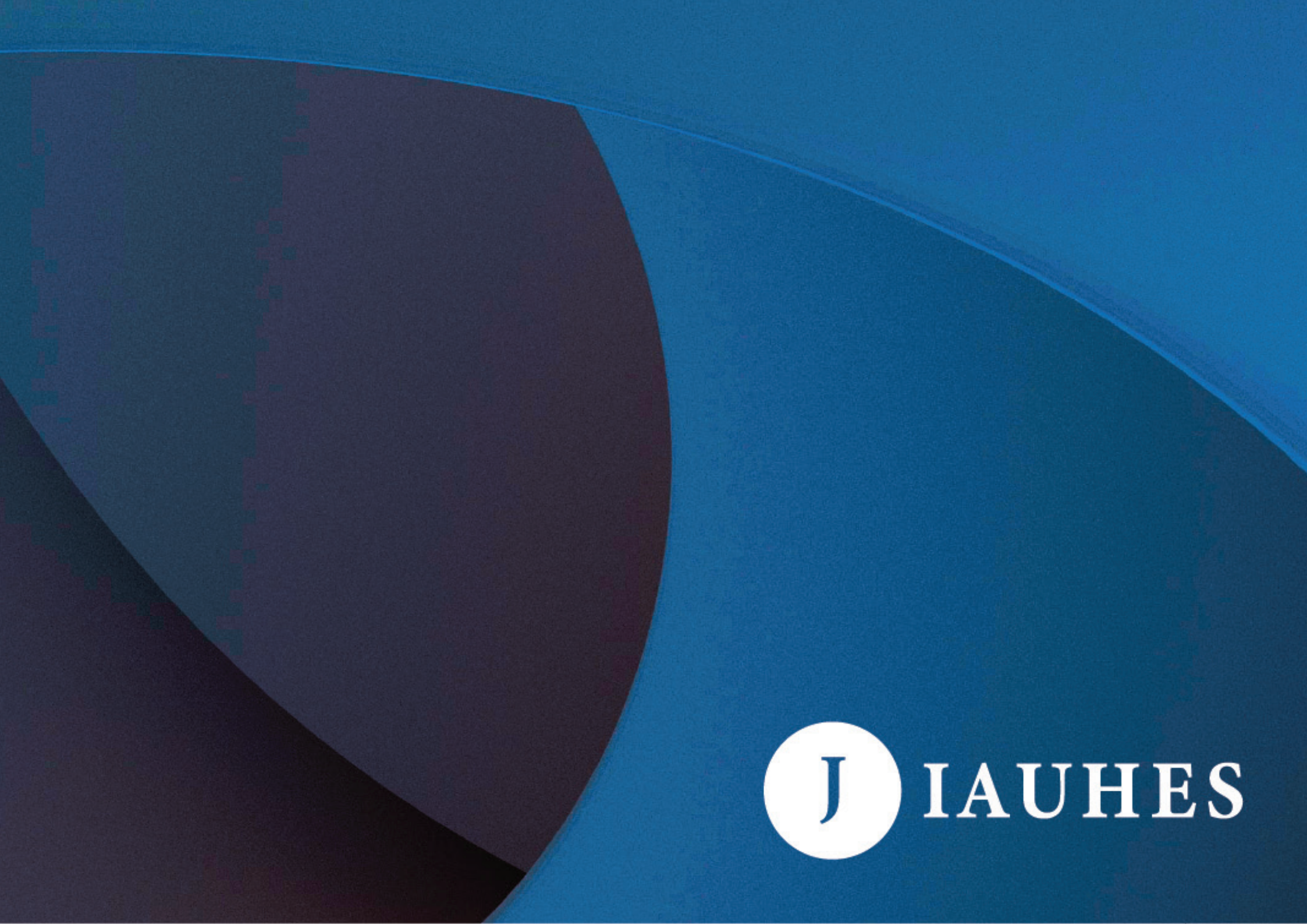
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