# Scopus

### **Documents**

Duasa, J.a, Zainan Nazri, N.J.b, Fatah Yasin, R.F.b

Recombinant collagen-like protein: ethical policy and consumers' likelihood to consume (2025) *Journal of Islamic Accounting and Business Research*, 16 (1), pp. 1-24.

DOI: 10.1108/JIABR-01-2022-0002

#### **Abstract**

Purpose: This study aims to investigate the tendency that Malaysian consumers will choose the recombinant collagen-like protein (RCLP) from bacteria as an alternative source of collagen in their consumption and the determinants of the consumer acceptance. Design/methodology/approach: Quantitative approach is adopted in the study. Descriptive analysis and logistic regression are used to analyze primary data collected from a survey. Findings: The likelihood of consumers choosing RCLP as an alternative source of collagen is higher among elderly and females. The choice is significantly influenced by the idea that the collagen should support maqasid al-syariah, approved by national Islamic body, should clear on the ingredients used and could boost local economic activities in the future. Research limitations/implications: An ethical halal policy should be outlined as the guiding principles to the potential producers of RCLP. Originality/value: An alternative source of collagen using bacteria as proposed is not yet being introduced in Malaysian industry, and the analysis on probability that consumers will accept this new sourced collagen product is using primary data from survey. © 2023, Emerald Publishing Limited.

#### **Author Keywords**

Consumers; Ethical policy; Logit regression; Recombinant collagen-like protein

#### References

Abd Rahman, A., Asrarhaghighi, E., Ab Rahman, S.
 Consumers and halal cosmetic products: knowledge, religiosity, attitude and intention
 (2015) Journal of Islamic Marketing, 6 (1), pp. 148-163.

Abdul Aziz, Y., Chok, N.V.

The role of halal awareness, halal certification, and marketing components in determining halal purchase intention among non-Muslims in Malaysia: a structural equation modeling approach

(2013) Journal of International Food and Agribusiness Marketing, 25 (1), pp. 1-23.

- Ahmad, S., Mohd Noor, M.A., Fitri, L.
  - Ketekalan Gelagat Pengguna Muslim Terhadap Status Halal: Kearah Strategi Berkesan Promosi Produk Halal

(2014) Proceedings of Ninth Malaysian National Economic Conference (PERKEM), accessed 25 December 2021

- Ahmed, M.A., Al-Kahtani, H.A., Jaswir, I., Tarboush, H.A., Ismail, E.A.
   Extraction and characterization of gelatin from camel skin (potential halal gelatin) and production of gelatin nanoparticles
   (2020) Saudi Journal of Biological Sciences, 27 (6), pp. 1596-1601.
- Aisyah, M.
   Consumers demand on halal cosmetics and personal care products in Indonesia (2017) AI-Iqtishad: Journal of Islamic Economics, 9 (1), pp. 125-142.
- Alhajyaseen, W.K.M., Asano, M., Nakamura, H.
   Left-turn gap acceptance models considering pedestrian movement characteristics

<sup>&</sup>lt;sup>a</sup> Department of Economics, Faculty of Economics and Management Sciences, International Islamic University Malaysia, Kuala Lumpur, Malaysia

<sup>&</sup>lt;sup>b</sup> Department of Quran and Sunnah Studies, Faculty of Islamic Revealed Knowledge and Human Sciences, International Islamic University Malaysia, Kuala Lumpur, Malaysia

(2013) Accident Analysis and Prevention, 50, pp. 175-185.

 Ambali, A.R., Bakar, A.N.
 Halāl food and products in Malaysia: people's awareness and policy implications (2013) Intellectual Discourse, 21 (1), pp. 7-32.

 An, B., Kaplan, D.L., Brodsky, B.
 Engineered recombinant bacterial collagen as an alternative collagen based biomaterial for tissue engineering (2014) Frontiers in Chemistry, 2 (40), pp. 1-5.

Aransyah, M.F., Furqoniah, F., Abdullah, A.H.
 The review study of halal products and its impact on non-Muslims purchase intention
 (2019) IKONOMIKA, 4 (2), pp. 181-198.

Awang, N.A., Amida, A., Arshad, Z.I.
 Method for purification of collagen: a systematic review
 (2020) Asia Pacific Journal of Molecular Biology and Biotechnology, 28 (3), pp. 99-112.

 Azmi, N.A.N., Noor, N.A.M., Elgharbawy, A.A.M.
 A bibliometric analysis on halal cosmetics over twenty years (2021) Halalpshere, 1 (1), pp. 53-71.

Bekker, G.A., Fischer, A.R., Tobi, H., van Trijp, H.C.
 Explicit and implicit attitude toward an emerging food technology: the case of cultured meat

 (2017) Appetite, 108, pp. 245-254.

Brett, D.

A review of collagen and collagen-based wound dressings (2008) *Wounds*, 20 (12), pp. 347-356.

Briliana, V., Noviana, R.

The antecedents and outcome of halal cosmetic products: a case study in Jakarta, Indonesia

(2016) International Journal of Business, Economics and Law, 11 (2), pp. 1-9.

Bruhn, C.M.
 Enhancing consumer acceptance of new processing technologies
 (2007) Food Science and Emerging Technologies, 8, pp. 550-558.

Brunner, G.C., Kumar, A.
 Explaining consumer acceptance of handheld internet devices
 (2005) Journal of Business Research, 58 (5), pp. 553-558.

 Bryant, C., Barnett, J.
 Consumer acceptance of cultured meat: a systematic review (2018) Meat Science, 143, pp. 8-17.

Cersoy, S., Zazzo, A., Lebon, M., Rofes, J., Zirah, S.
 Collagen extraction and stable isotope analysis of small vertebrate bones: a comparative approach

 (2017) Radiocarbon, 59 (3), pp. 679-694.

Chua, C.J., Lim, C.S., Aye, A.K.
 Factors affecting the consumer acceptance towards fintech products and services in Malaysia
 (2019) International Journal of Asian Social Science, 9 (1), pp. 59-65.

Colson, G.J., Huffman, W.C., Rousu, M.C.
 Improving the nutrient content of food through genetic modification: evidence from

**experimental auctions on consumer acceptance** (2011) *Journal of Agricultural and Resource Economics*, 36 (2), pp. 343-364.

• Conway, J.R.W., Vennin, C., Cazet, A.S., Herrmann, D., Murphy, K.J., Warren, S.C., Wullkopf, L., Pajic, M.

Three-dimensional organotypic matrices from alternative collagen sources as preclinical models for cell biology (2017) *Scientific Reports*, 7 (1), pp. 1-15.

• Crisosto, C.H., Crisosto, G.M.

Understanding consumer acceptance of early harvested 'hayward' kiwifruit
(2001) Postharvest Biology and Technology, 22 (3), pp. 205-213.

Crisosto, C.H., Crisosto, G.M., Metheney, P.
 Consumer acceptance of 'Brooks' and 'Bing' cherries is mainly dependent on fruit SSC and visual skin color
 (2003) Postharvest Biology and Technology, 28 (1), pp. 159-167.

- Crisosto, C.H., Garner, D., Crisosto, G.M., Bowerman, E. Increasing 'Blackamber' plum (Prunus salicina Lindell) consumer acceptance (2004) *Postharvest Biology and Technology*, 34 (3), pp. 327-344.
- Deane, C.S., Bass, J.J., Crossland, H., Phillips, B.E., Atherton, P.J.
   Animal, plant, collagen and blended dietary proteins: effects on musculoskeletal outcomes

   (2020) Nutrients, 12 (9), pp. 1-35.
- Duasa, J., Husin, A.M.
   The likelihood of choosing alternative source of collagen among consumers: logistic regression approach (2020) Journal of Social Science and Humanities, 3 (1), pp. 7-13.
- Duasa, J., Husin, A.M., Asmy Mohd Thas Thaker, M., Rahman, M.P.
   An alternative source of collagen for Muslim consumers: halal and environmental concerns
   (2022) Journal of Islamic Marketing, 13 (11), pp. 2232-2253.
- Duasa, J., Mohamed Noor, S.F., Asmy Mohd Thas Thaker, M., Rahman, M.P. The recombinant collagen-like protein as animal-based collagen substitution: a qualitative study (2020) *Journal of Contemporary Islamic Studies*, 6 (2), pp. 17-50.
- Exposito, F., Ruggiero, J.Y., Bournat, P., Gruber, V., Perret, S., Comte, J., Theisen, M.
   Triple helix assembly and processing of human collagen produced in transgenic tobacco plants
   (2000) FEBS Letters, 469 (1), pp. 132-136.
- Fadzlillah, N.A., Man, Y.B.C., Jamaludin, M.A., Rahman, S.A., Al-Kahtani, H.A.
   Halal food issues from Islamic and modern science perspectives
   (2011) Singapore: International Conference on Humanities, Historical and Social Sciences, 17, pp. 159-163.
   IACSIT Press

(2017) Malays. J. Med. Sci, 24, pp. 33-43.

Fauzi, M.B., Lokanathan, Y., Nadzir, M.M., Aminuddin, S., Ruszymah, B.H.I., Chowdhury, S.R.
 Attachment, proliferation, and morphological properties of human dermal fibroblasts on ovine tendon collagen scaffolds: a comparative study

- Fayad, R., Paper, D.
  - The technology acceptance model e-commerce extension: a conceptual framework (2015) *Procedia Economics and Finance*, 26, pp. 1000-1006.
- Frewer, L.J., Howard, C., Aaron, J.I.
   Consumer acceptance of transgenic crops (1998) Pesticide Science, 52 (4), pp. 388-393.
- Frewer, L., Scholderer, J., Lambert, N.
   Consumer acceptance of functional foods: issues for the future (2003) British Food Journal, 105 (10), pp. 714-731.
- Gathani, S.S., Hubona, G.S., Wang, J.
   Information technology (IT) in Saudi Arabia: culture and the acceptance and use of IT
   (2007) Information and Management, 44 (8), pp. 681-691.
- Gefen, D., Karahanna, E., Straub, D.W.
   Trust and TAM in online shopping: an integrated model (2003) MIS Quarterly, 27 (1), pp. 51-90.
- Gomez-Guillen, M.C., Gimenez, B., Lopez-Caballero, M.E., Montero, M.P.
   Functional and bioactive properties of collagen and gelatin from alternative sources: a review
   (2011) Food Hydrocolloids, 25 (8), pp. 1813-1827.
- (2021) Collagen market size, share and trends analysis report by source, by product (gelatin, hydrolyzed, native, synthetic), by application (food and beverages, healthcare, cosmetics), by region, and segment forecasts, 2021-2028, accessed 24 December 2021
- Haleem, A., Khan, M.I., Khan, S., Jami, A.R.
   Research status in halal: a review and bibliometric analysis
   (2020) Modern Supply Chain Research and Applications, 2 (1), pp. 23-41.
- Halim, M.A.A., Mohd Salleh, M.M., Kashim, M.I.A.M., Ahmad, A.A., Nordin, N. Halal pharmaceuticals: legal, Sharī'ah issues and fatwa of drug, gelatine and alcohol (2014) *International Journal of Asian Social Science*, 4 (12), pp. 1176-1190.
- Hashim, P., Ridzwan, M.M., Bakar, J., Hashim, M.D.
   Collagen in food and beverage industries
   (2015) International Food Research Journal, 22 (1), pp. 1-8.
- Ho, L.-H., Hung, C.-L., Chen, H.-C.
   Using theoretical models to examine the acceptance behavior of mobile phone messaging to enhance parent—teacher interactions
   (2013) Computers and Education, 61, pp. 105-114.
- Hoek, A.C., Lunng, P.A., Weijzen, P., Engels, W., Kok, F.J., de Graaf, C.
   Replacement of meat by meat substitutes. A survey on person- and product-related factors in consumer acceptance
   (2011) Appetite, 56 (3), pp. 662-673.
- Holman, B.W.B., Collins, D., Kilgannon, A.K., Hopkins, D.L.
   Using shear force, sarcomere length, particle size, collagen content, and protein solubility metrics to predict consumer acceptance of aged beef tenderness (2020) *Journal of Texture Studies*, 51 (4), pp. 559-566.
- Holman, B.W.B., Mortimer, S.I., Fowler, S.M., Hopkins, D.L.
   There is no relationship between lamb particle size and consumer scores for

tenderness, flavour, juiciness, overall liking or quality rank (2022) *Meat Science*, 188, p. 108808.

- Hong, W., Thong, J.Y.L., Wong, M.W., Tam, K.Y.
   Determinants of user acceptance of digital libraries: an empirical examination of individual differences and system characteristics
   (2002) Journal of Management Information Systems, 18 (3), pp. 97-124.
- Hu, W., Woods, T., Bastin, S.
   Consumer acceptance and willingness to pay for blueberry products with nonconventional attributes
   (2009) Journal of Agricultural and Applied Economics, 41 (1), pp. 47-60.
- Huda, N., Seow, E.K., Normawati, M.N., Nik Aisyah, N.M.
   Preliminary study on physicochemical properties of duck feet collagen (2013) International Journal of Poultry Science, 12 (10), pp. 615-621.
- Ismail, M., Ismail, M.N., Othman, R., Ismail, M.S.
   Halal topic journal content analysis in Journal of Islamic Marketing, British Food Journal and Meat Science
   (2020) Journal of Contemporary Islamic Studies, 5 (1), pp. 19-31.
- Ismail, M.N., Othman, R., Ismail, M.S.
   Halal tourism research bibliometric analysis in Scopus, ProQuest and Ebscohost (2019) Paper Presented at the International Halal Conference, 22nd–23rd April, Osaka, Japan: , accessed 26 June 2022
- Jahangir, M., Mehmood, Z., Bashir, Q., Mehboob, F., Ali, K.
   Halal status of ingredients after physicochemical alteration (Istihalah)
   (2016) Trends in Food Science and Technology, 47, pp. 78-81.
- Jalil, N.S.A., Tawde, A.V., Zito, S., Sinclair, M., Fryer, C., Idrus, Z., Phillips, C.J.C.
   Attitudes of the public towards halal food and associated animal welfare issues in two countries with predominantly Muslim and non-Muslim populations (2018) *Plos One*, 13 (10), p. e0204094.
- Jumani, Z.A., Sukhabot, S.
   Behavioral intentions of different religions: purchasing halal logo products at convenience stores in Hatyai
   (2019) Journal of Islamic Marketing, 11 (3), pp. 797-818.
- Karahalil, E.
   Principles of halal-compliant fermentations: microbial alternatives for the halal food industry
   (2020) Trends in Food Science and Technology, 98, pp. 1-9.
- Kashim, M.I.A.M., Husni, A.M.
   Maqasid Shariah in modern biotechnology concerning food product (2017) *International Journal of Islamic Thought*, 12, pp. 27-39.
- Khan, R., Tausif, S., Malik, A.J.
   Consumer acceptance of delivery drones in urban areas (2018) International Journal of Consumer Studies, 43 (1).
- Lausch, A.J., Chong, L.C., Uludag, H., Sone, E.D.
   Multiphasic collagen scaffolds for engineered tissue interfaces (2018) Advanced Functional Materials, 28 (48), pp. 1-9.
- Liang, T.-P., Huang, J.-S.
   An empirical study on consumer acceptance of products in electronic markets: a

## transaction cost model

(1998) Decision Support Systems, 24 (1), pp. 29-43.

• Listyarini, H.W., Setiartiti, L.

Analysis factors of willingness to pay for halal labelled cosmetics on non-Muslim community in Yogyakarta

(2020) Journal of Economics Research and Social Sciences, 4 (1), pp. 44-58.

• Liu, D.C., Lin, Y.K., Chen, M.T.

Optimum condition of extracting collagen from chicken feet and its characteristics (2001) *Asian-Australasian Journal of Animal Sciences*, 14 (11), pp. 1638-1644.

• Made, G.A., Prima, S.R.

The importance of halal certification for the processed food by SMEs to increase export opportunities

(2022) E3S Web of Conferences 348, 00039,

Mankad, A., Tapsuwan, S.

Review of socio-economic divers of community acceptance and adoption of decentralised water systems

(2011) Journal of Environmental Management, 92 (3), pp. 380-391.

Mohamed, M.

Ethics for profits: the challenges ahead

(1998) Islam, Knowledge and Ethics: A Pertinent Culture for Managing Organizations, pp. 107-135.

Alhabshi, S.O. and Hassan, N.M. (Ed.), Institute of Islamic Understanding Malaysia, Kuala Lumpur

- Morey, A., Johnson, M.L., Kataria, J., Gonzalez, J.M. Studying the effects of collagenase (type 1) on the collagen in woody breast meat (2020) *Animals*, 10 (9), p. 1602.
- . Mostafa, M.M.

A knowledge domain visualization review of thirty years of halal food research: themes, trends and knowledge structure

(2020) Trends in Food Science and Technology, 99, pp. 660-677.

Musa, M., Shaikh Mohd Salleh, S.M.S.

The elements of an ideal total quality from the Islamic perspective (2005) Quality Standard from the Islamic Perspective, pp. 149-172.

Musa, M. and Shaikh Mohd Salleh, S.M.S. (Ed.), Institute of Islamic Understanding Malaysia, Kuala Lumpur

Myllyharju, J.

(2009) Recombinant collagen trimers from insect cells and yeast. In extracellular matrix protocols, pp. 51-62.

**Humana Press** 

Naomi, R., Bahari, H., Ridzuan, P.M., Othman, F.
 Natural-based biomaterial for skin wound healing (gelatin vs collagen): expert review

(2021) Polymers, 13 (14), p. 2319.

- Olsen, D., Yang, C., Bodo, M., Chang, R., Leigh, S., Baez, J., Carmichael, D., Polarek, J.
   Recombinant collagen and gelatin for drug delivery
   (2003) Advanced Drug Delivery Reviews, 55 (12), pp. 1547-1567.
- Omar, W.M.W., Ismail, M.N., Ismail, M., Ahmad, G.O., Ya, M.S.
   Visualizing research literature in halal supply chain: a bibliometric analysis
   (2020) Malaysian Journal of Consumer and Family Economics, 24 (S2), pp. 75-92.

- Omar, S., Omar, S., Mohd Rodzi, S., Chek Talib, N., Mohd Noor, N.
   Factors affecting consumer's intention towards purchasing halal collagen beauty drinks in Malaysia: a structural equation modelling
   (2019) Journal of Entrepreneurship and Business, 7 (2), pp. 70-82.
- Omar, W.M., Rahman, S., Jie, F.
   Halal food chain management: a systematic review of literature and future research directions

(2015) roceedings of the 13th ANZAM Operations, Supply Chain and Services Management Symposium (ANZAM 2015), pp. 1-26.
RMIT University, Melbourne, Australian and New Zealand Academy of Management

RMIT University, Melbourne, Australian and New Zealand Academy of Management (ANZAM

• Othman, K.

Quality management system vs maqasid shariah; Islamic quality management system vs customer satisfaction

(2017) International Journal of Academic Research in Business and Social Sciences, 7 (13), pp. 20-34.

- Othman, K., Md Hamdani, S., Sulaiman, M., Mutalib, M.M., Ramly, R.
   A philosophy of Maqasid Shariah underpinned Muslim food consumption and the Halalan Toyyiban concept
   (2018) 'Abgari Journal, 13 (1), pp. 75-86.
- Park, N., Roman, R., Lee, S., Chung, J.E.
   User acceptance of a digital library system in developing countries: an application of the technology acceptance model

   (2009) International Journal of Information Management, 29 (3), pp. 196-209.
- Pavlou, P.A.
   Consumer acceptance of electronic commerce: integrating trust and risk with the technology acceptance model
   (2014) International Journal of Electronic Commerce, 7 (3), pp. 101-134.
- Peng, Y.Y., Howell, L., Stoichevska, V., Werkmeister, J.A., Dumsday, G.J., Ramshaw, J.A.M.

Towards scalable production of a collagen-like protein from streptococcus pyogenes for biomedical applications (2012) *Microbial Cell Factories*, 11 (1), pp. 1-8.

- Platter, W.J., Tatum, J.D., Belk, E.K., Chapman, P.L., Scanga, J.A., Smith, G.C.
   Relationships of consumer sensory ratings, marbling score, and shear force value to consumer acceptance of beef strip loin steaks
   (2003) Journal of Animal Science, 81 (11), pp. 2741-2750.
- Rajic, S., Simunovic, S., Djordjevic, V., Raseta, M., Tomasevic, I., Djekic, I.
   Quality multiverse of beef and pork meat in a single score
   (2022) Foods, 11 (8), p. 1154.
- Regenstein, J.M., Zhou, P.
   Collagen and gelatin from marine by-products
   (2007) Maximising the Value of Marine By-Products, pp. 279-303.
   Shahidi, F. (Ed.), Woodhead Publishing, Sawston
- Rexfelt, O., Ornas, V.H.
   Consumer acceptance of product-service systems designing for relative advantages and uncertainty reductions
   (2009) Journal of Manufacturing Technology Management, 20 (5), pp. 674-699.

- Riaz, M., Chaudry, M.M.
   (2004) Halal Food Production,
   CRC Press LLC, FL, United States
- Rumpold, B.A., Langen, N.

  Potential of enhancing consumer acceptance of edible insects via information (2019) *Journal of Insects as Food and Feed*, 5 (1), pp. 45-53.
- Salvatore, L., Gallo, N., Natali, M.L., Campa, L., Lunetti, P., Madaghiele, M., Blasi, F.S., Sannino, A.

Marine collagen and its derivatives: versatile and sustainable bio-resources for healthcare

(2020) Materials Science and Engineering: C, 113, p. 110963.

• Schmidt, M.M., Dornelles, R.C.P., Mello, R.O., Kubota, E.H., Mazutti, M.A., Kempka, A.P., Demiate, I.M.

**Collagen extraction process** 

(2016) International Food Research Journal, 23 (3), pp. 913-922.

Secinaro, S., Calandra, D.

 Halal foods of restaurand literature

Halal food: structured literature review and research agenda (2020) *British Food Journal*, 123 (1), pp. 225-243.

Shamsuddin, A., Mohd Yusof, F., Sulaiman, N.S.U.

Exploring factors of choosing halal cosmetics among cosmetics entrepreneurs in Malaysia

(2021) Nusantara Halal Journal (Halal Awareness, Opinion, Research, and Initiative), 2 (1), pp. 1-5.

- Siegrist, M., Sütterlin, B., Hartmann, C.
   Perceived naturalness and evoked disgust influence acceptance of cultured meat (2018) Meat Science, 139, pp. 213-219.
- Silvipriya, K.S., Krishna Kumar, K., Bhat, A.R., Dinesh Kumar, B., John, A., Lakshmanan, P.

Collagen: animal sources and biomedical application (2015) *Journal of Applied Pharmaceutical Science*, 5, pp. 123-127.

Slade, P.

If you build it, will they eat it? Consumer preferences for plant-based and cultured meat burgers

(2018) Appetite, 125, pp. 428-437.

- Smarzyński, K., Sarbak, P., Musiał, S., Jeżowski, P., Piątek, M., Kowalczewski, P.L.
   Nutritional analysis and evaluation of the consumer acceptance of pork pâté enriched with cricket powder preliminary study
   (2019) Open Agriculture, 4 (1), pp. 159-163.
- Sompie, M., Siswosubroto, S.E.

The effect of different concentration of chicken leg skin gelatin on the chemical characteristics and the consumer acceptability of chicken meat sausage (2021) *IOP Conf. Ser.: Earth Environ. Sci*, 788 012125

- Subhan, F., Hussain, Z., Tauseef, I., Shehzad, A., Wahid, F.
   A review on recent advances and applications of fish collagen
   (2021) Critical Reviews in Food Science and Nutrition, 61 (6), pp. 1027-1037.
- Sugibayashi, K., Yusuf, E., Todo, H., Dahlizar, S., Sakdiset, P., Arce, F., Jr., See, G.L.
   Halal cosmetics: a review on ingredients, production, and testing methods (2019) Cosmetics, 6 (3), p. 37.

- Tharindu, R.L., Senadheera, D., Shahidi, F.
   Review sea cucumber derived type I collagen: a comprehensive review (2020) Mar. Drugs, 18 (9), p. 471.
- Thielen, L.V., Vermuyten, S., Storms, B., Rumpold, B., Campenhout, L.V.
   Consumer acceptance of foods containing edible insects in Belgium two years after their introduction to the market
   (2019) Journal of Insects as Food and Feed, 5 (1), pp. 35-44.
- · Verbeke, W.

Consumer acceptance of functional foods: socio-demographic, cognitive and attitudinal determinants

(2005) Food Quality and Preference, 16 (1), pp. 45-57.

- Wilks, M., Phillips, C.J.
  - Attitudes to in vitro meat: a survey of potential consumers in the United States (2017) *Plos One*, 12 (2), p. e0171904.
- Wilson, J.A.J., Grant, J.
   Islamic marketing a challenger to the classical marketing canon?
   (2013) Journal of Islamic Marketing, 4 (1), pp. 7-21.
- Wilson, E.V., Lankton, N.K.
   Modeling patients' acceptance of provider-delivered e-health
   (2014) Journal of American Medical Informatics Association, 11 (4).
- Wilson, J.A.J., Liu, J. **The challenges of Islamic branding: navigating emotions and halal** (2011) *Journal of Islamic Marketing*, 2 (1), pp. 28-42.
- Wood, A., Ogawa, M., Portier, R.J., Schexnayder, M., Shirley, M., Losso, J.N.
   Biochemical properties of alligator (Alligator mississippiensis) bone collagen (2008) Comparative Biochemistry and Physiology Part B: Biochemistry and Molecular Biology, 151 (3), pp. 246-249.
- Xu, C., Yu, Z., Inouye, M., Brodsky, B., Mirochnitchenko, O. Bacterial collagen-like proteins that form triple-helical structures (2014) *Journal of Structural Biology*, 186 (3), pp. 451-461.
- Yu, Z., An, B., Ramshaw, J.A., Brodsky, B. Bacterial collagen-like proteins that form triple-helical structures (2014) *Journal of Structural Biology*, 186 (3), pp. 451-461.
- Zamzahaila, M.Z., Norizah, M.S., Mohamad Khairi, Z., Siti Nur'Afifah, J., Madihah, M.S., Asyraf, A.R.

Halal and non-halal gelatine as a potential animal by-products in food systems: prospects and challenges for Muslim community (2021) Proceedings of the First International Conference on Science, Technology, Engineering and Industrial Revolution (ICSTEIR 2020), pp. 530-540.

Atlantis Press

- Zhai, P., Williams, E.D.
   Analyzing consumer acceptance of photovoltaics (PV) using fuzzy logic model (2012) Renewable Energy, 41, pp. 350-357.
- Zhang, J., Duan, R.
   Characterisation of acid-soluble and pepsin-solubilised collagen from frog (Rana nigromaculata) skin
   (2017) International Journal of Biological Macromolecules, 101, pp. 638-642.

- Zhou, C., Li, Y., Yu, X., Yang, H., Ma, H., Yagoub, A.E.G.A., Cheng, Y., Otu, P.N.Y.
   Extraction and characterization of chicken feet soluble collagen
   (2016) LWT, 74, pp. 145-153.
- Ahmed, W., Najmi, A., Faizan, H.M., Ahmed, S.
   Consumer behaviour towards willingness to pay for halal products: an assessment of demand for halal certification in a Muslim country (2019) *British Food Journal*, 121 (2), pp. 492-504.

**Correspondence Address** 

Duasa J.; Department of Economics, Malaysia; email: jarita@iium.edu.my

Publisher: Emerald Publishing

ISSN: 17590817

Language of Original Document: English

Abbreviated Source Title: J. Islamic Account. Bus. Res.

2-s2.0-85166907040 **Document Type:** Article **Publication Stage:** Final

Source: Scopus



Copyright © 2025 Elsevier B.V. All rights reserved. Scopus $\circledR$  is a registered trademark of Elsevier B.V.

**RELX** Group™