

**DEVELOPING CLASSIFICATION FACTORS FOR SHARIA-
COMPLIANT CRYPTO IN INDONESIA**

THESIS

Submitted to Fulfill Requirements
for the Degree of Master in Islamic Economics



**UIN SUNAN AMPEL
S U R A B A Y A**

By

CHETRINE ALYA RINAIMA

Student ID: 02250323011

**POSTGRADUATE PROGRAM
STATE ISLAMIC UNIVERSITY OF SUNAN AMPEL
SURABAYA
2026**

PERNYATAAN KEASLIAN

Yang bertandatangan di bawah ini, saya:

Nama : Chetrine Alya Rinaima
NIM : 02250323011
Fakultas/Prodi : Pascasarjana/Magister Ekonomi Syariah
Judul Tesis : *DEVELOPING CLASSIFICATIONS
FACTORS FOR SHARIA-COMPLIANT
CRYPTO IN INDONESIA*

Dengan sungguh-sungguh menyatakan bahwa tesis ini secara keseluruhan adalah hasil dari penelitian atau karya saya sendiri, kecuali pada bagian-bagian yang dirujuk sumbernya.

Surabaya, 12 Januari 2026
Saya yang menyatakan,



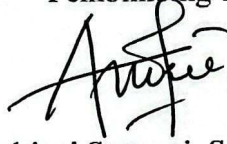
Chetrine Alya Rinaima
NIM. 02250323011

PERSETUJUAN PEMBIMBING

Tesis dengan judul "*DEVELOPING CLASSIFICATION FACTORS FOR SHARIA-COMPLIANT CRYPTO IN INDONESIA*", yang ditulis oleh Chetrine Alya Rinaima ini telah disetujui pada tanggal 12 Januari 2026.

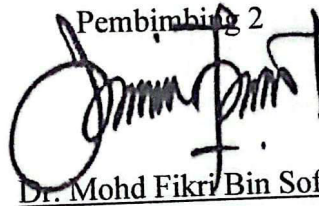
Oleh:

Pembimbing 1



Dr. Andriani Samsuri, S.Sos., M.M.
NIP. 197608022009122002

Pembimbing 2



Dr. Mohd Fikri Bin Sofi

THESIS EXAMINATION APPROVAL

The thesis with title "*DEVELOPING CLASSIFICATION FACTORS FOR SHARIA-COMPLIANT CRYPTO IN INDONESIA*", written by Chetrine Alya Rinaima, was examined on 09 January, 2026.

Examination Board:

Andriani Samsuri, S.Sos., MM.
NIP. 197608022009122002

(Chief Examiner)



Dr. Mohd Fikri Bin Sofi

(Secretary)



Dr. Hj. Nurhayati, M.Ag
NIP. 196806271992032001

(Examiner 1)



Prof. Drs. H. Nur Kholis, M.Ed.Admin., Ph.D.
NIP. 196703111992031003

(Examiner 2)



Surabaya, 12 January 2026

Dean



Dr. Sirajul Arifin, S.Ag., S.S., M.E.I.
NIP. 197005142000031001

LEMBAR PERNYATAAN PERSETUJUAN PUBLIKASI
KARYA ILMIAH UNTUK KEPENTINGAN AKADEMIS

Sebagai sivitas akademika UIN Sunan Ampel Surabaya, yang bertanda tangan di bawah ini, saya:

Nama : CHETRINE ALYA RINAIMA
NIM : 02250323011
Fakultas/Jurusan : PASCASARJANA/MAGISTER EKONOMI SYARIAH
E-mail address : chetrinealya@gmail.com

Demi pengembangan ilmu pengetahuan, menyetujui untuk memberikan kepada Perpustakaan UIN Sunan Ampel Surabaya, Hak Bebas Royalti Non-Eksklusif atas karya ilmiah :

☐ Sekripsi ☒ Tesis ☐ Desertasi ☐ Lain-lain (.....)
yang berjudul :

DEVELOPING CLASSIFICATION FACTORS FOR SHARIA-COMPLIANT CRYPTO IN
INDONESIA

beserta perangkat yang diperlukan (bila ada). Dengan Hak Bebas Royalti Non-Eksklusif ini Perpustakaan UIN Sunan Ampel Surabaya berhak menyimpan, mengalih-media/format-kan, mengelolanya dalam bentuk pangkalan data (database), mendistribusikannya, dan menampilkan/mempublikasikannya di Internet atau media lain secara *fulltext* untuk kepentingan akademis tanpa perlu meminta ijin dari saya selama tetap mencantumkan nama saya sebagai penulis/pencipta dan atau penerbit yang bersangkutan.

Saya bersedia untuk menanggung secara pribadi, tanpa melibatkan pihak Perpustakaan UIN Sunan Ampel Surabaya, segala bentuk tuntutan hukum yang timbul atas pelanggaran Hak Cipta dalam karya ilmiah saya ini.

Demikian pernyataan ini yang saya buat dengan sebenarnya.

Surabaya, 12 Januari 2026

Penulis



(Chetrine Alya Rinaima)

ABSTRACT

The rapid growth of cryptocurrency adoption in Indonesia has raised concerns regarding Sharia compliance due to the lack of operational standards. Existing studies remain largely normative, with limited empirical evidence on how Sharia principles are structured in practice. This study addresses this gap by developing empirically grounded classification factors for Sharia-compliant crypto in Indonesia.

This study employs a sequential exploratory mixed-method design. In the initial qualitative stage, an extensive review of fatwa, project and crypto-related literature was conducted to generate an initial pool of 53 Sharia compliance indicators. These indicators were subsequently evaluated and refined through a Delphi process involving six experts from regulatory bodies, academia, the crypto industry, and scholar. Through iterative expert assessment, one additional indicator related to environmental sustainability was proposed and achieved consensus, resulting in a final set of 54 Sharia compliance indicators.

In the quantitative stage, the finalized indicators were administered to 597 Indonesian crypto users who passed a strict screening process. Exploratory Factor Analysis (EFA) was applied to examine how these indicators are empirically structured based on users' perceptions. The results reveal eight latent factors shaping the perception of Sharia-compliant crypto: Transaction Principles, Underlying Asset Compliance, Transparency Disclosure, Governance Institutional Oversight, Legal Regulatory Compliance, Ethical Risk Management Security, *Maqāṣid al-Sharī'ah* Alignment, and Social Impact. These findings indicate that Sharia compliance in crypto is perceived as a multidimensional construct rather than a single legal or transactional criterion.

This study contributes to Islamic finance literature by empirically operationalizing Sharia principles for digital assets and bridging normative Sharia discourse with user-based empirical analysis. The proposed classification factors do not constitute a Sharia ruling, but serve as an empirical reference for understanding how Sharia compliance is evaluated in practice. The findings provide practical insights for regulators, Sharia authorities, and crypto developers in Indonesia in designing more operational, transparent, and ethically grounded approaches to Sharia-compliant crypto.

Keyword : *Sharia-compliant crypto; Islamic finance; maqāṣid al-Shariah.*

ABSTRAK

Pertumbuhan pesat adopsi kripto di Indonesia menimbulkan berbagai kekhawatiran terkait kepatuhan terhadap prinsip-prinsip Syariah, terutama akibat belum tersedianya standar operasional yang jelas. Kajian yang ada masih didominasi oleh pendekatan normatif, sementara bukti empiris mengenai bagaimana prinsip Syariah terstruktur dan dipahami dalam praktik masih terbatas. Penelitian ini bertujuan untuk mengisi kesenjangan tersebut dengan mengembangkan faktor klasifikasi kripto yang patuh Syariah berbasis empiris dalam konteks Indonesia.

Penelitian ini menggunakan desain *sequential exploratory mixed-method*. Pada tahap kualitatif awal, dilakukan telaah literatur secara komprehensif terhadap fatwa, proyek, dan kajian terkait kripto untuk menghasilkan 53 indikator awal kepatuhan Syariah. Indikator-indikator tersebut kemudian dievaluasi dan disempurnakan melalui proses Delphi yang melibatkan enam pakar dari regulator, akademisi, industri kripto, dan ulama. Melalui penilaian pakar secara iteratif, satu indikator tambahan terkait keberlanjutan lingkungan diusulkan dan mencapai konsensus, sehingga menghasilkan total 54 indikator kepatuhan Syariah.

Pada tahap kuantitatif, indikator final tersebut disebarkan kepada 597 pengguna kripto di Indonesia yang telah lolos proses penyaringan ketat. Analisis Faktor Eksploratori (EFA) digunakan untuk menguji bagaimana indikator-indikator tersebut terstruktur secara empiris berdasarkan persepsi pengguna. Hasil analisis mengidentifikasi delapan faktor laten yang membentuk persepsi kripto patuh Syariah, yaitu Prinsip Transaksi, Kepatuhan Aset Dasar, Transparansi dan Pengungkapan, Tata Kelola dan Pengawasan Institusional, Kepatuhan Hukum dan Regulasi, Manajemen Risiko Etis dan Keamanan Sistem, Keselarasan dengan Maqāṣid al-Sharī'ah, serta Dampak Sosial. Temuan ini menunjukkan bahwa kepatuhan Syariah dalam kripto dipersepsikan sebagai konstruksi multidimensional, bukan sekadar kriteria hukum atau transaksi tunggal.

Penelitian ini berkontribusi pada literatur keuangan Islam dengan mengoperasionalkan prinsip-prinsip Syariah secara empiris dalam konteks aset digital serta menjembatani diskursus Syariah normatif dengan analisis berbasis persepsi pengguna. Faktor klasifikasi yang diusulkan tidak dimaksudkan sebagai fatwa atau putusan Syariah, melainkan sebagai referensi empiris untuk memahami bagaimana kepatuhan Syariah dievaluasi dalam praktik. Temuan penelitian ini memberikan implikasi praktis bagi regulator, otoritas Syariah, dan pengembang kripto di Indonesia dalam merancang pendekatan kripto patuh Syariah yang lebih operasional, transparan, dan berlandaskan etika.

Kata kunci: Kripto syariah; Keuangan Islam; *maqāṣid al-Sharī'ah*.

TABLE OF CONTENT

<i>PERNYATAAN KEASLIAN</i>	<i>ii</i>
<i>PERSETUJUAN PEMBIMBING</i>	<i>iii</i>
<i>THESIS EXAMINATION APPROVAL</i>	<i>iv</i>
<i>LEMBAR PERNYATAAN</i>	<i>v</i>
<i>ABSTRACT</i>	<i>vi</i>
<i>ACKNOWLEDGEMENT</i>	<i>viii</i>
<i>TABLE OF CONTENT</i>	<i>ix</i>
<i>LIST OF TABLE</i>	<i>xi</i>
<i>LIST OF FIGURE</i>	<i>xii</i>
<i>CHAPER I</i>	<i>1</i>
<i>INTRODUCTION</i>	<i>1</i>
1.1 Background of the Study	1
1.2. Problem Statement	9
1.3 Limitation of the Study	11
1.4 Research Questions	11
1.5 Research Objectives	12
1.6 Significance of the Study	12
1.6.1 Theoretical Contribution	12
1.6.2 Practical Contribution	13
<i>CHAPTER II</i>	<i>15</i>
<i>LITERATURE REVIEW</i>	<i>15</i>
2.1 Theoretical Review	15
2.1.1 <i>Maqāṣid al-Sharī'ah</i>	15
2.1.2 Sharia Principles in Finance.....	19
2.1.3 Concept of Crypto	23
2.1.4 Sharia-Compliant Crypto.....	27
2.1.5 Regulation of Crypto in Indonesia.....	28
2.2 Previous Studies	29

2.3 Conceptual Framework	37
CHAPTER III	39
RESEARCH METHODOLOGY	39
3.1 Type of Research	39
3.2 Research Location and Period.....	40
3.3 Research Stages.....	41
3.3.1 Qualitative Phase.....	41
3.3.2 Quantitative Phase.....	48
CHAPTER IV.....	57
FINDING AND DISCUSSION.....	57
4.1 Finding.....	57
4.1.1 Identification of Sharia Compliant Crypto.....	57
4.1.2 Delphi Method Result	80
4.1.3 Factor Analysis Result	92
4.1.4 Instrument Testing.....	99
4.1.5 Factor Extraction	107
4.2 Discussion	117
4.2.1 Formation of Sharia Judgement on Crypto Assets.....	117
4.2.2 Indicators Determining Sharia Compliance of Crypto According to Islamic Finance Experts in Indonesia.....	122
4.2.3 Empirical Interpretation of Sharia-Compliant Crypto Indicators	127
CHAPTER V	143
CONCLUSION AND RECOMMENDATIONS.....	143
5.1 Conclusion	143
5.2 Recommendations.....	144
5.2.1 Policy and Regulatory Recommendations	144
5.2.2 Industry and Developer Recommendations	145
5.2.3 Investor and User Recommendations.....	145
5.3 Contributions	146
5.3.1 Theoretical Contributions.....	146
5.3.2 Practical and Policy Contributions	146
5.3.3 Academic and Knowledge Advancement Contributions	147
5.4 Limitations and Future Research	147
REFERENCES.....	148
APPENDIX	168

LIST OF TABLE

Table 2.1 Previous Studies and Research Gap on Sharia-Compliant Crypto in Indonesia.....	32
Table 3. 1 Criteria for Inclusion and Exclusion of Sources.....	42
Table 4. 1 Sharia Requirements and Status of Crypto Assets from Authority/Project.....	62
Table 4. 2 Sharia-Compliant Crypto Indicators Derived from Academic Literature.....	73
Table 4. 3 Preliminary Indicators of Sharia-Compliant Crypto Derived from Literature Review.....	76
Table 4. 4 Profile of Expert Judges	80
Table 4. 5 Consensus Measurement Results of Round 1.....	86
Table 4. 6 Consensus Measurement Results of Round 2.....	88
Table 4. 7 Final List of Sharia Compliance Indicators for Crypto	89
Table 4. 8 Distribution of Respondents by Age Group	93
Table 4. 9 Distribution of Respondents by Gender	94
Table 4. 10 Distribution of Respondents by Education Level.....	94
Table 4. 11 Distribution of Respondents by Main Occupation	95
Table 4. 12 Distribution of Respondents by Monthly Income	96
Table 4. 13 Distribution of Respondents by Province of Residence	97
Table 4. 14 Distribution of Respondents by Area of Residence.....	99
Table 4. 15 Results of Item Reability Testing (Pre-Test).....	101
Table 4. 16 Results of Item Validity Testing (Main Test).....	102
Table 4.17 Results of Item Reability Testing (Main Test).....	104
Table 4.18 KMO and Bartlett's Test.....	105
Table 4. 19 KMO-MSA Result.....	106
Table 4. 20 Communalities (Initial Extraction).....	107
Table 4.21 Communalities After Item Reduction.....	109
Table 4.22 Initial Eigenvalues Result.....	110
Table 4. 23 Rotated Factor Loading Matrix	112
Table 4. 24 Exploratory Factor Analysis Results of Sharia-Compliant Crypto Indicators	114
Table 4. 25 Exploratory Factor Analysis Results and Factor Composition	117

LIST OF FIGURE

Figure 1.1 Distribution of Percentage of Crypto Owners per Country..2	
Figure 2. 1 Conceptual Framework.....38	
Figure 3.1 Research Design Flow40	



REFERENCES

- Abd Razak, A. H. (2020). Multiple Sharia' board directorship: a Maslahah (public interest) perspective. *Journal of Islamic Marketing*, 11(3), 745–764. <https://doi.org/10.1108/JIMA-10-2018-0185>
- Abdol, J. W. N. F., Razali, F., Ismail, N., & Ismawi, N. (2023). Exploratory Factor Analysis: Validity and Reliability of Teacher's Knowledge Construct Instrument. *International Journal of Academic Research in Progressive Education and Development*, 12(1). <https://doi.org/10.6007/IJARPED/v12-i1/16236>
- Adamczyk, B. (2025). Dissection of an Approval-Based Trusted-Token Fraud Scheme Used Across Multiple Blockchain Systems. *IEEE Access*, 13, 34467–34482. <https://doi.org/10.1109/ACCESS.2025.3543651>
- Ahmed, H., & Salleh, A. M. H. A. P. M. (2016). Inclusive Islamic financial planning: a conceptual framework. *International Journal of Islamic and Middle Eastern Finance and Management*, 9(2), 170–189. <https://doi.org/10.1108/IMEFM-01-2015-0006>
- Ajayi, V. O. (2025). A Review on Primary Sources of Data and Secondary Sources of Data. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.5378785>
- Ajouz, M., Abdullah, A., & Kassim, S. (2019). Developing A Sharī'ah-Compliant Precious Metal Backed Crypto. *JKAU: Islamic Econ*, 33(1), 3–20. <https://doi.org/10.4197/Islec>

- Alaze, A., Finne, E., Razum, O., & Miani, C. (2025). A questionnaire for a conceptual framework and interdisciplinary public health research using the Delphi technique development and validation. *Frontiers in Public Health*.
- Albina, B., Sergey, Y., Andrey, B., Irina, T., & Tofig, M. (2023). THE ESSENCE OF THE DELPHI METHOD AND ITS MAIN ADVANTAGES AND DISADVANTAGES. *Reliability: Theory & Applications*, 5(75), 158–163.
- Al-Nassr, A. N. M. N., Alazab, M., & Al-Siddiqi, E. H. M. (2024). A Study on Viability of Crypto Adoption in Qatar: A Thematic Coding Approach of Fifty Reviews. *2024 International Conference on Computer and Applications (ICCA)*, 1–15. <https://doi.org/10.1109/ICCA62237.2024.10928144>
- Amarasinghe, N., Boyen, X., & McKague, M. (2021). The Cryptographic Complexity of Anonymous Coins: A Systematic Exploration. *Cryptography*, 5(1), 10. <https://doi.org/10.3390/cryptography5010010>
- Amin, H. (2022). Examining new measure of asnaf muslimpreneur success model: a Maqasid perspective. *Journal of Islamic Accounting and Business Research*, 13(4), 596–622. <https://doi.org/10.1108/JIABR-04-2021-0116>
- Anam, K. (2024, August 4). *Kupas Peluang Investasi Kripto di Indonesia, Investor Wajib Tahu!* 2025.
- Andolfatto, D., & Martin, F. M. (2022). The Blockchain Revolution: Decoding Digital Currencies. *Review*, 104(3). <https://doi.org/10.20955/r.104.149-65>
- Andriansyah, Y. (2023). Analysis of Fatwas by the National Sharia Board-Indonesian Council of Ulama on the Stock Market. *Millah: Journal of Religious Studies*, 525–552. <https://doi.org/10.20885/millah.vol22.iss2.art9>
- Arief, J. M., & Muneeza, A. (2023). CRYPTO ASSETS: THE NEED FOR SHARIA SCREENING CRITERIA FOR DIGITAL ASSETS IN MALAYSIA. *International Journal of Islamic Economics and Finance Research*, 1, 27–47. <https://doi.org/10.53840/ijiefer111>
- Arnon, S., & Reichel, N. (2009). Closed and Open-Ended Question Tools in a Telephone Survey About ‘‘The Good Teacher’’. *Journal of Mixed Methods Research*, 3(2), 172–196. <https://doi.org/10.1177/1558689808331036>

- Arya, A., Singh, J., Gupta, A., & Dwivedi, R. K. (2024). Developing an Effective Consensus Mechanism for a Secure Blockchain-Based Cross-Border Fund Transfer System. *2024 IEEE International Conference on Computing, Power and Communication Technologies (IC2PCT)*, 636–642. <https://doi.org/10.1109/IC2PCT60090.2024.10486373>
- Asari, N. A. M. (2024). ISLAMIC GUIDANCE FOR RESPONSIBLE PERSONAL FINANCIAL DECISION-MAKING. *SSRN*.
- Asatullaeva, Z., Aghdam, R. F. Z., Ahmad, N., & Tashpulatova, L. (2021). The impact of foreign aid on economic development: A systematic literature review and content analysis of the top 50 most influential papers. *Journal of International Development*, 33(4), 717–751. <https://doi.org/10.1002/jid.3543>
- Ashafa, S. A. (2021). Riba (Interest) Between Reason and Revelation in Islam. *Journal of Islamic Economic and Business Research*, 1(2), 180–192. <https://doi.org/10.18196/jiebr.v1i2.18>
- Astrakhantseva, I., & Astrakhantsev, R. (2021). Crypto as a New Financial and Legal Instrument: Defining Cryptoassets in Property Law. *SHS Web of Conferences*, 93, 02002. <https://doi.org/10.1051/shsconf/20219302002>
- Auda, J. (2022). *Re-envisioning Islamic scholarship: Maqasid methodology as a new approach*. Claritas Books.
- Azid, T., Antonio, M. S., Kayani, Z., & Mukhlisin, M. (2023). *Islamic economic institutions in indonesia: Are they successful in achieving the maqasad-al-shari'ah*. 1–236. <https://doi.org/10.1142/13317>
- Baining, M. E., Amir, A., Hizazi, A., & Arum, E. D. P. (2024). FINDING THE MAQASHID AL-SYARIAH PERFORMANCE MODEL ON SYARIAH MANAGEMENT ACCOUNTING INFORMATION SYSTEM VALUES. *Al-Risalah: Forum Kajian Hukum Dan Sosial Kemasyarakatan*, 24(2), 87–104. <https://doi.org/10.30631/alrisalah.v24i2.1642>
- Baldwin, J. R. (2023). Protecting against researcher bias in secondary data analysis: challenges and potential solutions. *European Journal of Epidemiology*, 37(1), 1–10.
- Beiderbeck, D., Frevel, N., von der Gracht, H. A., Schmidt, S. L., & Schweitzer, V. M. (2021). Preparing, conducting, and analyzing Delphi surveys: Cross-disciplinary practices, new directions, and

- advancements. *MethodsX*, 8, 101401.
<https://doi.org/10.1016/j.mex.2021.101401>
- Bennett, M. S., & Iqbal, Z. (2023). How socially responsible investing can help bridge the gap between Islamic and conventional financial markets. *International Journal of Islamic and Middle Eastern Finance and Management*, 6(3), 211–225.
- Best, R. W., Campbell, J. T., Edwards, M. C., & Cline, L. L. (2025). An Overview of the Delphi Method's Origin, Modifications, and Use to Augment Instrument Development and Data Collection: A Research Note. *Journal of International Agricultural and Extension Education*, 32(1). <https://doi.org/10.4148/2831-5960.1497>
- Bhandari, S., & Hallowell, M. R. (2021). Identifying and Controlling Biases in Expert-Opinion Research: Guidelines for Variations of Delphi, Nominal Group Technique, and Focus Groups. *Journal of Management in Engineering*, 37(3).
[https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0000909](https://doi.org/10.1061/(ASCE)ME.1943-5479.0000909)
- Bindseil, U. (2019). Central Bank Digital Currency: Financial System Implications and Control. *International Journal of Political Economy*, 48(4), 303–335.
<https://doi.org/10.1080/08911916.2019.1693160>
- Boos, T., & Grigera, J. (2025). Two legal tenders, no currency. El Salvador's bitcoin adoption between world money and international money. *Progress in Economic Geography*, 3(2), 100045. <https://doi.org/10.1016/j.peg.2025.100045>
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing*, 25(8), 652–661.
<https://doi.org/10.1177/1744987120927206>
- Chan, P. (2022). An Empirical Study on Data Validation Methods of Delphi and General Consensus. *Data*, 7(2), 18.
<https://doi.org/10.3390/data7020018>
- Chen, H., Wei, N., Wang, L., Fawzy Mohamed Mobarak, W., Ali Albahar, M., & Shaikh, Z. A. (2024). The Role of Blockchain in Finance Beyond Crypto: Trust, Data Management, and Automation. *IEEE Access*, 12, 64861–64885.
<https://doi.org/10.1109/ACCESS.2024.3395918>

- Chen, X., Xu, Q., & Li, L. (2023). Illegal, Unreported, and Unregulated Fishing Governance in Disputed Maritime Areas: Reflections on the International Legal Obligations of States. *Fishes*, 8(1), 36. <https://doi.org/10.3390/fishes8010036>
- Cherrier, B. (2017). Classifying Economics: A History of the *JEL* Codes. *Journal of Economic Literature*, 55(2), 545–579. <https://doi.org/10.1257/jel.20151296>
- Chigbu, U. E., Atiku, S. O., & Du Plessis, C. C. (2023). The Science of Literature Reviews: Searching, Identifying, Selecting, and Synthesising. *Publications*, 11(1), 2. <https://doi.org/10.3390/publications11010002>
- Curry, L. A., Nembhard, I. M., & Bradley, E. H. (2019). Qualitative and Mixed Methods Provide Unique Contributions to Outcomes Research. *Circulation*, 119(10), 1442–1452. <https://doi.org/10.1161/CIRCULATIONAHA.107.742775>
- Daru, M. (2021). Partnership expansion between farmers and the herbal medicine industry for community economic development. *E3S Web of Conferences*, 306, 02006. <https://doi.org/10.1051/e3sconf/202130602006>
- Decker, N. (2025). The U.S. Dollar in Crisis: The Role of Asset-Backed Digital Currencies in Its Transformation. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.5169860>
- Deng, W., Huang, T., & Wang, H. (2022). A Review of the Key Technology in a Blockchain Building Decentralized Trust Platform. *Mathematics*, 11(1), 101. <https://doi.org/10.3390/math11010101>
- Dilla, F. (2025, August 3). *OJK Catat Nilai Transaksi Kripto Indonesia Turun 34 Persen pada Juni 2025*. Coinvestasi.
- Ekal, H. H., & Wahab, S. N. A. (2022). DeFi Governance and Decision-Making on Blockchain. *Mesopotamian Journal of Computer Science*, 2022, 10–17. <https://doi.org/10.58496/MJCSC/2022/003>
- El Hajj, M., & Farran, I. (2024). The Cryptocurrencies in Emerging Markets: Enhancing Financial Inclusion and Economic Empowerment. *Journal of Risk and Financial Management*, 17(10), 467. <https://doi.org/10.3390/jrfm17100467>
- Emerson, R. W. (2024). Validity and Reliability. *Journal of Visual Impairment & Blindness*, 118(4), 280–281. <https://doi.org/10.1177/0145482X241278447>

- Erba, D. M. F., & Nofrianto, N. (2022). Implementation of Maqashid Syariah in Sharia Business Transactions. *AL-FALAH: Journal of Islamic Economics*, 7(1), 125. <https://doi.org/10.29240/alfalah.v7i1.3703>
- Fageh, A., & Iman, A. K. N. (2021). Crypto as Investment in Commodity Futures Trading in Indonesia; Based on Maqashid Sharia Approach. *JURNAL HUKUM ISLAM*, 19(2), 175–192. <https://doi.org/10.28918/jhi.v19i2.3723>
- Faizi. (2023). Are Cryptocurrencies Haram? A Critical Analysis toward MUI's Fatwā. *AL-IHKAM: Jurnal Hukum & Pranata Sosial*, 18(2), 420–442. <https://doi.org/10.19105/al-lhkam.v18i2.8290>
- Fan, L. (2022). Mobile investment technology adoption among investors. *International Journal of Bank Marketing*, 40(1), 50–67. <https://doi.org/10.1108/IJBM-11-2020-0551>
- Farzaneh, B. A., Batool, E., Sedigheh, S. M., Raheleh, R., & Khatereh, S. (2023). A Literature Review of Group Decision-Making: The Case Study of Delphi Method. *Medical Education Bulletin*, 4(4), 824–833.
- Fasa, M. I., Aviva, I. Y., Firmansah, Y., & Suharto, S. (2019). CONTROVERSY ON RIBA PROHIBITION: MAQASHID SHARIA PERSPECTIVE. *International Journal of Islamic Economics*, 1(02), 124. <https://doi.org/10.32332/ijie.v1i02.1804>
- Fauzi, Y. (2015). Manajemen Pemasaran Perspektif Maqasid Syariah. *Jurnal Ilmiah Ekonomi Islam*, 1(03). <https://doi.org/10.29040/jiei.v1i03.51>
- Fiedler, I., & Ante, L. (2023). Stablecoins. In *The Emerald Handbook on Cryptoassets: Investment Opportunities and Challenges* (pp. 93–105). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-80455-320-620221007>
- Flore, M. (2018). How blockchain-based technology is disrupting migrants' remittances: a preliminary assessment. *Luxembourg*.
- Franc, J. M., Hung, K. K. C., Pirisi, A., & Weinstein, E. S. (2023). Analysis of Delphi study 7-point linear scale data by parametric methods: Use of the mean and standard deviation. *Methodological Innovations*, 16(2), 226–233. <https://doi.org/10.1177/20597991231179393>

- Goretzko, D. (2025). How many factors to retain in exploratory factor analysis? A critical overview of factor retention methods. *Psychological Methods*. <https://doi.org/10.1037/met0000733>
- Goretzko, D., Siemund, K., & Sterner, P. (2024). Evaluating Model Fit of Measurement Models in Confirmatory Factor Analysis. *Educational and Psychological Measurement*, 84(1), 123–144. <https://doi.org/10.1177/00131644231163813>
- Govindasamy, P., Isa, N. J. M., Mohamed, N. F., Noor, A. M., Ma, L., Olmos, A., & Green, K. (2024). A systematic review of exploratory factor analysis packages in R software. *WIREs Computational Statistics*, 16(1). <https://doi.org/10.1002/wics.1630>
- Grech, P., & Grech, R. (2021). Stroke knowledge: Developing a framework for data integration in a sequential exploratory mixed method study. *Research Methods in Medicine & Health Sciences*, 2(2), 68–81. <https://doi.org/10.1177/2632084320978040>
- Gulturk, E. A. (2024). Scale adaptation and redevelopment: A review on validity and reliability. *Journal of Cellular and Molecular Immunology*, 3(1), 26–32. <https://doi.org/10.46439/immunol.3.027>
- Hair Jr, Babin, R. E. A., Black, B. J., William C., & Joseph F. (2019). *Multivariate data analysis (8th ed.)* (8th ed.). Annabel Ainscow.
- Hairudin, A., Sifat, I. M., Mohamad, A., & Yusof, Y. (2022). Cryptocurrencies: A survey on acceptance, governance and market dynamics. *International Journal of Finance & Economics*, 27(4), 4633–4659. <https://doi.org/10.1002/ijfe.2392>
- Hassan, M. K., Muneeza, A., & Mohamed, I. (2025). Cryptocurrencies from Islamic perspective. *Journal of Islamic Accounting and Business Research*, 16(2), 390–410. <https://doi.org/10.1108/JIABR-09-2022-0238>
- Heiling, J. (2025). Digital transformation and the accounting for intangible assets in the public sector. *Journal of Public Budgeting, Accounting & Financial Management*. <https://doi.org/10.1108/JPBAFM-09-2024-0177>
- Herskind, L., Katsikouli, P., & Dragoni, N. (2020). Privacy and Cryptocurrencies A Systematic Literature Review. *IEEE Access*, 8, 54044–54059. <https://doi.org/10.1109/ACCESS.2020.2980950>
- Hikmah, N., & Yazid, M. (2024). Maqashid Al-Syariah as a Contemporary Economic Solution According to Yusuf Al-

- Qaradawi. *ITQAN: Journal of Islamic Economics, Management, and Finance*, 4(1), 51–63. <https://doi.org/10.57053/itqan.v4i1.62>
- Hong, Q. N., Pluye, P., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., Gagnon, M.-P., Griffiths, F., Nicolau, B., O’Cathain, A., Rousseau, M.-C., & Vedel, I. (2019a). Improving the content validity of the mixed methods appraisal tool: a modified e-Delphi study. *Journal of Clinical Epidemiology*, 111, 49–59.e1. <https://doi.org/10.1016/j.jclinepi.2019.03.008>
- Hong, Q. N., Pluye, P., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., Gagnon, M.-P., Griffiths, F., Nicolau, B., O’Cathain, A., Rousseau, M.-C., & Vedel, I. (2019b). Improving the content validity of the mixed methods appraisal tool: a modified e-Delphi study. *Journal of Clinical Epidemiology*, 111, 49–59.e1. <https://doi.org/10.1016/j.jclinepi.2019.03.008>
- Hossain, M. S. (2021). What do we know about crypto? Past, present, future. *China Finance Review International*, 11(4), 552–572. <https://doi.org/10.1108/CFRI-03-2020-0026>
- Hubur, A. A. , C. Y.-W. and N. R. (2025). A STUDY ON THE FATWA OF THE INDONESIAN ULEMA COUNCIL (MUI) REGARDING CRYPTO AND ITS IMPLEMENTATION IN INDONESIA. *JOURNAL OF INTEGRATED SCIENCES*, 1(4).
- Huda, B., Rianto, A. W., Mochammad, A. A., & Fadllan, F. (2025). Assessing the Legality of Crypto Trading in Indonesia’s Commodity Market: An Analytical Study Based on Maqāsid Al-Sharī‘ah. *Syariah: Jurnal Hukum Dan Pemikiran*, 25(1), 67–95.
- Imam, M. (2023). The Law of Bitcoin Transaction as a Digital Currency from the Maslahah Perspective. *Manchester J. Int’l Econ*, 20(1), 53–65.
- Ishak, M. S. I., & Asni, F. (2020). The role of maqasid al-Shari‘ah in applying fiqh muamalat into modern Islamic banking in Malaysia. *Journal of Islamic Accounting and Business Research*, 11(9), 2137–2154. <https://doi.org/10.1108/JIABR-12-2019-0224>
- Ismail, G., & Naiema, T. (2023). The Delphi Method. *Cham: Springer International Publishing*, 985–1003.
- Ismail, I. (2024). *Analisis data kuantitatif dengan program R*. CV. Ruang Tentor.

- Jain, S., Kavita, D., & Shashikant, N. S. (2023). Explanation of Delphi research method and expert opinion surveys. *Think India*, 27(5), 37–48.
- Jais, M., & Sayed Mahdi, S. E. (2024). The Contemporary Environment on the Application Sharia Supplementary Contracts in Islamic Banking Products of the Islamic Banks. *International Journal of Kita Kreatif*, 1(2).
- Jaradat, H., & Oudat, M. S. (2025). Enhancing clarity and transparency in Islamic financial practices: the role of regulatory influence. *Journal of Financial Reporting and Accounting*. <https://doi.org/10.1108/JFRA-07-2024-0479>
- Jegerson, D., & Mertzanis, C. (2025a). Deciphering the role of cryptocurrencies in global remittances: a comprehensive literature review. *Management & Sustainability: An Arab Review*, 4(2), 268–291. <https://doi.org/10.1108/MSAR-12-2023-0061>
- Jegerson, D., & Mertzanis, C. (2025b). Deciphering the role of cryptocurrencies in global remittances: a comprehensive literature review. *Management & Sustainability: An Arab Review*, 4(2), 268–291. <https://doi.org/10.1108/MSAR-12-2023-0061>
- Jozipovic, Š., Perkušić, M., & Mladinić, N. (2024). A COMPARATIVE REVIEW OF THE LEGAL STATUS OF NATIONAL CRYPTOCURRENCIES AND CBDCs : A LEGAL TENDER OR JUST ANOTHER MEANS OF PAYMENT. *Pravni Vjesnik*, 40(1), 77–96. <https://doi.org/10.25234/pv/27044>
- Junaidi, J. (2022). Religiosity versus profit-loss sharing: how Islamic banks brand fidelity influence the Muslim consumers' commitment. *Journal of Islamic Accounting and Business Research*, 13(6), 960–976. <https://doi.org/10.1108/JIABR-07-2021-0188>
- Kadir, K., Ashaari, N., Ramli, R. Z., & Salim, J. (2025). Islamic information credibility scale development : Factors and indicators validation using fuzzy Delphi technique. *Information Development*, 41(2), 353–367. <https://doi.org/10.1177/02666669231163255>
- Kanwal, A. (2022). The prohibition of speculation in Islamic finance: fairness and framing. *International Journal of Islamic and Middle Eastern Finance and Management*, 15(1), 146–157. <https://doi.org/10.1108/IMEFM-01-2021-0034>
- Karimullah, S. S., Said, N. M., Rahmah, St., Wasalmi, W., & Syafi'i, A. G. (2023). Da'wah for Social Justice: Creating Awareness of Social

- Issues Through a Religious Approach. *Jurnal Dakwah Risalah*, 34(2), 110. <https://doi.org/10.24014/jdr.v34i2.25373>
- Karki, K. K. (2025). *Research Methodology and Approach* (pp. 23–42). https://doi.org/10.1007/978-981-96-9752-6_2
- Kasri, N. S., Bouheraoua, S., & Mohamed Radzi, S. (2023). Maqasid al-Sharia and sustainable development goals convergence: An assessment of global best practices. In Islamic finance, fintech, and the road to sustainability: Reframing the approach in the post-pandemic era. *Cham: Springer International Publishing*, 59–105.
- Kenneh, M. (2024). Sharia investment Challenges and Growth for Sustainable and Inclusive Financial Equality in Digital Innovation. *Bulletin of Islamic Economics*, 3(1), 1–11. <https://doi.org/10.14421/bie.2024.031-01>
- Kent, P., Cancelliere, C., Boyle, E., Cassidy, J. D., & Kongsted, A. (2020). A conceptual framework for prognostic research. *BMC Medical Research Methodology*, 20(1), 172. <https://doi.org/10.1186/s12874-020-01050-7>
- Khaing, P. S. (2024). Role of Central Bank Digital Currencies in Bridging the Formal-Informal Economy Divide in Developing Countries. *Univerzita Karlova*.
- Khairi, K. F. N. H. L. and A. Ahmad. (2024). The Newly Developed of Blockchain Architecture on Zakat Collection in Malaysia: A Case in MAIWPPPZ, Malaysia. *Global Business & Management Research*, 16(2).
- Khalefa, E. Y., & Selian, S. N. (2021). Non-Random Samples as a Data Collection Tool in Qualitative Art-Related Studies. *International Journal of Creative and Arts Studies*, 8(1), 35–49. <https://doi.org/10.24821/ijcas.v8i1.5184>
- Khan, S., & Rabbani, M. R. (2022). In-depth analysis of blockchain, crypto and sharia compliance. *International Journal of Business Innovation and Research*, 29(1), 1. <https://doi.org/10.1504/IJBIR.2022.125657>
- Khanal, B., & Chhetri, D. B. (2024). A Pilot Study Approach to Assessing the Reliability and Validity of Relevancy and Efficacy Survey Scale. *Janabhawana Research Journal*, 3(1), 35–49. <https://doi.org/10.3126/jrj.v3i1.68384>
- Kochergin, D. (2022). Crypto-assets: Economic Nature, Classification and Regulation of Turnover. *International Organisations Research*

- Journal*, 17(3), 75–130. <https://doi.org/10.17323/1996-7845-2022-03-04>
- Kosnik, L. (2018). A SURVEY OF JEL CODES: WHAT DO THEY MEAN AND ARE THEY USED CONSISTENTLY? *Journal of Economic Surveys*, 32(1), 249–272. <https://doi.org/10.1111/joes.12189>
- Kumar, N. (2025, July 30). *How Many Cryptocurrencies Are There? (2025 Stats)*. Demand Sage.
- Kurnia, A. (2023). *Maqashid Sharia Framework: Sharia Financial Inclusion Through Indonesian Sharia Mobile Bank* (pp. 445–453). https://doi.org/10.1007/978-3-031-27860-0_40
- Kusnan, Osman, M. D. H. bin, & Khalilurrahman. (2022). Maqashid Al Sharia in Economic Development: Theoretical Review of Muhammad Umer Chapra's Thoughts. *Millah: Journal of Religious Studies*, 583–612. <https://doi.org/10.20885/millah.vol21.iss2.art10>
- Kuyateh, M. A. (2022). Sharia Compliance Prohibitions in Islamic Banking and Finance: The Case of Riba, Gharar and Maysir. *Journal of Islamic Banking & Finance*, 39(1).
- Kyriazos, T., & Poga, K. M. (2023a). Applied Psychometrics: Estimator Considerations in Commonly Encountered Conditions in CFA, SEM, and EFA Practice. *Psychology*, 14(05), 799–828. <https://doi.org/10.4236/psych.2023.145043>
- Kyriazos, T., & Poga, M. (2023b). Dealing with Multicollinearity in Factor Analysis: The Problem, Detections, and Solutions. *Open Journal of Statistics*, 13(03), 404–424. <https://doi.org/10.4236/ojs.2023.133020>
- Landeta, J., & Lertxundi, A. (2024). Quality indicators for Delphi studies. *FUTURES & FORESIGHT SCIENCE*, 6(1). <https://doi.org/10.1002/ffo2.172>
- Latang, M. A., Fathurrahman, & Muhammad Faried. (2024). Fatwa on Crypto as Digital Assets. *PAREWA SARAQ: JOURNAL OF ISLAMIC LAW AND FATWA REVIEW*, 3(2), 96–106. <https://doi.org/10.64016/parewasaraq.v3i2.32>
- Lee, E. (2025). Advancing Digital Economy and Financial Inclusion through Central Bank Digital Currencies: A Comprehensive Analysis of Policies and Legal Implications through e-CNY and

- eNaira. *African Journal of International and Comparative Law*, 33(1), 1–28. <https://doi.org/10.3366/ajicl.2025.0510>
- Lenarcic, B., & Faganel, A. (2025). A study of contemporary procurement strategies: insights from European experts using a Delphi study approach. *International Journal of Procurement Management*, 23(2), 209–230. <https://doi.org/10.1504/IJPM.2025.145942>
- Lim, W. M. (2025). What Is Qualitative Research? An Overview and Guidelines. *Australasian Marketing Journal*, 33(2), 199–229. <https://doi.org/10.1177/14413582241264619>
- Lim, W. M., Kumar, S., & Ali, F. (2022). Advancing knowledge through literature reviews: ‘what’, ‘why’, and ‘how to contribute.’ *The Service Industries Journal*, 42(7–8), 481–513. <https://doi.org/10.1080/02642069.2022.2047941>
- Long, J. A. (2021). Improving the replicability and generalizability of inferences in quantitative communication research. *Annals of the International Communication Association*, 45(3), 207–220. <https://doi.org/10.1080/23808985.2021.1979421>
- Luqmanulhakim, L. (2024). Prioritization of the Use of Individual Assets Based on the Ta’awun Economic Concept. *Bulletin of Islamic Economics*, 3(1), 42–52. <https://doi.org/10.14421/bie.2024.031-05>
- Ma, W. (2023). Terrorist Financing, War Crimes, and Crypto Geopolitics." A Comprehensive Guide for Web3 Security: From Technology, Economic and Legal Aspects. *Cham: Springer Nature Switzerland*, 241–259.
- Maroungkas, A., Troussas, C., Krouska, A., & Sgouropoulou, C. (2023). Virtual Reality in Education: A Review of Learning Theories, Approaches and Methodologies for the Last Decade. *Electronics*, 12(13), 2832. <https://doi.org/10.3390/electronics12132832>
- Marthinsen, J., & Gordon, S. (2021). A theory of optimum crypto scope. *Economics of Innovation and New Technology*, 30(2), 183–196. <https://doi.org/10.1080/10438599.2019.1687395>
- Mokodompis, I. I., Pedju, R. P., & Muhammad, A. A. (2024). Integrating Islamic Law and Modern Regulation: Crypto as a Sharia-Compliant Digital Asset in Indonesia. *Antmind Review: Journal of Sharia and Legal Ethics*, 1(2), 83–93. <https://doi.org/10.63077/r27rd104>
- Muhit, M. (2023). The Urgency of Understanding Maqashid Al-Syariah In the Musyarakah Mutanaqishah Contract. *Journal of*

- International Islamic Business Studies*, 1(1), 12–21.
<https://doi.org/10.32424/jiibs.v1i01.8208>
- Munandar, S. A., & Fahrurrozi. (2025). Controversies of crypto: Fatwa analysis and implications from Muhammadiyah and NU perspectives in Indonesia. *Journal of Islamic Law on Digital Economy and Business*, 1(1), 18–35.
- Muneeza, A., Bin-Nashwan, S. A., Abdel Moshin, M. I., Mohamed, I., & Al-Saadi, A. (2023). Zakat payment from cryptocurrencies and crypto assets. *International Journal of Islamic and Middle Eastern Finance and Management*, 16(3), 482–497.
<https://doi.org/10.1108/IMEFM-12-2021-0487>
- Muneeza, A., & Mustapha, Z. (2019). Application of blockchain technology in crowdfunding to fuel the rise of the rest globally. *A Journal of Interest Free Microfinance*, 7(1), 9–26.
- Mushaddik, I. N., & Abdul, W. J. N. (2023). Malaysia's Potential Revolution: Embracing Gold-Backed Crypto into International Net Settlement via Blockchain Could Transform Economic and Financial Resilience. *Journal of Islam in Asia (E-ISSN 2289-8077)*, 20(3), 337–382. <https://doi.org/10.31436/jia.v20i3.1188>
- Muslimawati, N. (2025, August 3). *Nilai Transaksi Kripto di RI Tembus Rp 32,31 T per Juni 2025*. Kumparan Bisnis.
- Muslimin, D., Januarsi, Y., Majid, M. N., Effendi, N. I., Simarmata, N., Ristiyana, R., & Langelo, W. (2023). *Metodologi Penelitian Kuantitatif dan Kualitatif*. Global Eksekutif Teknologi.
- Mustofa, I., Khairudin, Junaidi, A., Rahmad, R. A., & Jafar, W. A. (2023). The Law of Bitcoin Transactions as a Digital Currency from the Maslahah Perspective. *Manchester Journal of International Economic Law*, 20(1), 53–65.
- Muthoifin, M., Badat Alauddin, M., Achour, M., Ammar Al-amudi, M., Arya Sembara, P., Rosyadi, R. I., Abd Adzim, A., Mahmoud ELSakhawy, R., Yudha Rhezaldi, A., & Iqbal, M. (2024). The Concept of Ta'awun and Sharia Mutual Cooperation in Prosperity and the Establishment of Darus Salam Mosque. *Demak Universal Journal of Islam and Sharia*, 1(03), 241–254.
<https://doi.org/10.61455/deujis.v1i03.75>
- Naeem, M., Ozuem, W., Howell, K., & Ranfagni, S. (2023). A Step-by-Step Process of Thematic Analysis to Develop a Conceptual Model

- in Qualitative Research. *International Journal of Qualitative Methods*, 22. <https://doi.org/10.1177/16094069231205789>
- Nagpal, D., Kornerup, I., & Gibson, M. P. (2021). Mixed-method Research: A Basic Understanding. *CODS Journal of Dentistry*, 12(1), 11–16. <https://doi.org/10.5005/jp-journals-10063-0065>
- Nakavachara, V., Potipiti, T., & Lertmongkolnam, T. (2019). Should All Blockchain-Based Digital Assets be Classified Under the Same Asset Class? *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3437279>
- Natow, R. S. (2020). The use of triangulation in qualitative studies employing elite interviews. *Qualitative Research*, 20(2), 160–173. <https://doi.org/10.1177/1468794119830077>
- Naz, S., & Nazir, N. (2024). Examining the Adoptability of Crypto in the Islamic Financial System: Perspectives from Sharī'ah Scholars. *Journal of King Abdulaziz University, Islamic Economics*, 37(2), 75–98. <https://doi.org/10.4197/Islec.37-2.4>
- Norchaevna, N. S. (2024). Islamic Finance: Principles, Governance, Sustainability and Investment Insights. *European Journal of Management, Economics and Business*, 1(3), 206–216. [https://doi.org/10.59324/ejmeb.2024.1\(3\).17](https://doi.org/10.59324/ejmeb.2024.1(3).17)
- Nyimbili, F., & Nyimbili, L. (2024). Types of Purposive Sampling Techniques with Their Examples and Application in Qualitative Research Studies. *British Journal of Multidisciplinary and Advanced Studies*, 5(1), 90–99. <https://doi.org/10.37745/bjmas.2022.0419>
- Olsen, A. A., Wolcott, M. D., Haines, S. T., Janke, K. K., & McLaughlin, J. E. (2021). How to use the Delphi method to aid in decision making and build consensus in pharmacy education. *Currents in Pharmacy Teaching and Learning*, 13(10), 1376–1385. <https://doi.org/10.1016/j.cptl.2021.07.018>
- Panda, S. K., Sathya, A. R., & Das, S. (2023). Bitcoin: Beginning of the Crypto Era. In *Cham: Springer International Publishing* (pp. 25–58). https://doi.org/10.1007/978-3-031-22835-3_2
- Pandey, P., & Pandey, M. M. (2021). Research Methodology Tools and Techniques. *Bridge Center*.
- Parrondo, L. (2024). Typology and classification of crypto-assets based on the MiCA regulatory framework: contributions and limitations. In *Research Handbook on Financial Accounting* (pp. 264–282).

- Edward Elgar Publishing.
<https://doi.org/10.4337/9781803920597.00025>
- Pernice, I. G. A., & Scott, B. (2021). Crypto. *Internet Policy Review*, 10(2). <https://doi.org/10.14763/2021.2.1561>
- Pertiwi, T. D., & Herianingrum, S. (2024). Menggali Konsep Maqashid Syariah: Perspektif Pemikiran Tokoh Islam. *Jurnal Ilmiah Ekonomi Islam*, 10(1), 807. <https://doi.org/10.29040/jiei.v10i1.12386>
- Piliyanti, I. (2023). Implementing Maqāṣid Syarī'ah on Social Innovation For Sustainable Zakat Management Organization in Indonesia. *KARSA*, 31(1), 109–130. <https://doi.org/10.19105/karsa.v31i1.12554>
- Pinkerton, J. (2025, February 18). *The History of Bitcoin*. US News.
- Proudfoot, K. (2023). Inductive/Deductive Hybrid Thematic Analysis in Mixed Methods Research. *Journal of Mixed Methods Research*, 17(3), 308–326. <https://doi.org/10.1177/15586898221126816>
- Qorib, A., Harahap, I., Fakultas Ekonomi, M. A., Bisnis, D., Uin, I., & Medan, S. U. (2016). Penerapan Masalah Mursalah Dalam Ekonomi Islam. *Analytica Islamica*, 5, 55–80.
- Quartiroli, A. (2025). The Delphi technique in sport, exercise, and performance psychology: Extensive scoping review, insights, and recommendations for scholars. *Sport, Exercise, and Performance Psychology*, 14(1), 57–77. <https://doi.org/10.1037/spy0000364>
- Rahardja, U. (2023). The Economic Impact of Cryptocurrencies in Indonesia. *ADI Journal on Recent Innovation (AJRI)*, 4(2), 194–200. <https://doi.org/10.34306/ajri.v4i2.869>
- Rahmadani, N. M. P., & Fajar, F. (2024). ALIGNING CRYPTOCURRENCIES WITH ISLAMIC LAW: CHALLENGES, ETHICAL CONCERNS, AND REGULATORY SOLUTIONS. *Istinbath*, 23(2), 366–383. <https://doi.org/10.20414/ijhi.v23i2.887>
- Rahmawati, H. (2022). Money Market Mechanism Based On Sharia Principles. *International Journal Of Humanities Education and Social Sciences (IJHESS)*, 2(1). <https://doi.org/10.55227/ijhess.v2i1.209>
- Rambe, S. E., Hasibuan, B. H., Haryadi, I., Harahap, S. A. R., & Pangestu, M. Q. (2023). Sustainable Islamic Development Management Based on Maqashid Syariah. *Islamic Business and*

- Management Journal*, 6(2), 154–162.
<https://doi.org/10.21111/ibmj.v6i2.11380>
- Rani, M. A. H. C. R., Kamalulai, M. J., & Awang, A. (2024). Exploring the Impact of Bitcoin as a New form of Property on the Maqasid Sharia: Maslahah and Mafsadah Perspective. *Exploring the Impact of Bitcoin as a New Form of Property on the Maqasid Sharia: Maslahah and Mafsadah Perspective*, 14(11).
- Razi, Q., Devrani, A., Abhyankar, H., Chalapathi, G. S. S., Hassija, V., & Guizani, M. (2024). Non-Fungible Tokens (NFTs) Survey of Current Applications, Evolution, and Future Directions. *IEEE Open Journal of the Communications Society*, 5, 2765–2791.
<https://doi.org/10.1109/OJCOMS.2023.3343926>
- Reif, A., & Guenther, L. (2021). How representative surveys measure public (dis)trust in science: A systematisation and analysis of survey items and open-ended questions. *Journal of Trust Research*, 11(2), 94–118. <https://doi.org/10.1080/21515581.2022.2075373>
- Rejeb, D. (2021). *Smart Contract 's Contributions to Mudaraba*. 15(1), 1–18.
- Repelita, null, Iskandar, N., & Mursal, M. (2024). HALAL WITHOUT LABEL: IMPLEMENTATION OF MAQĀSID AL-SHARĪ'AH IN COMMUNITY-BASED TOURISM IN KERINCI, INDONESIA. *Malaysian Journal of Syariah and Law*, 12(1), 192–205. <https://doi.org/10.33102/mjssl.vol12no1.477>
- Roberts, C. (2022). Stablecoins-Types and Definitions. *Zillion Research Labs*, 1–7.
- Rosyadi, M. S. (2025). Ikhtisar Al-Raisuni Atas Maqashid Al-Syari'ah (Studi Pemikiran Maqashid Al-Raisuni). *Millatuna: Jurnal Studi Islam*, 2(02), 95–106. <https://doi.org/10.33752/mjsi.v2i02.8939>
- Sanuri, S. (2023). Debate Over Law Number 17 of 2023 Concerning Community Organizations: Maqasid Al-Shari'ah Review. *Al-Daulah Jurnal Hukum Dan Perundangan Islam*, 13(1), 50–85. <https://doi.org/10.15642/ad.2023.13.1.50-85>
- Sappaile, B. I., Abeng, A. T., & Nuridayanti, N. (2023). Exploratory Factor Analysis as a Tool for Determining Indicators of a Research Variable: Literature Review. *International Journal of Educational Narratives*, 1(6), 304–313. <https://doi.org/10.55849/ijen.v1i6.387>
- Saraji, S. (2023). *Introduction to Blockchain* (pp. 57–74). https://doi.org/10.1007/978-3-031-30697-6_3

- Schreiber, J. B. (2021a). Issues and recommendations for exploratory factor analysis and principal component analysis. *Research in Social and Administrative Pharmacy*, 17(5), 1004–1011. <https://doi.org/10.1016/j.sapharm.2020.07.027>
- Schreiber, J. B. (2021b). Issues and recommendations for exploratory factor analysis and principal component analysis. *Research in Social and Administrative Pharmacy*, 17(5), 1004–1011. <https://doi.org/10.1016/j.sapharm.2020.07.027>
- Selim, M. (2020). The effects of eliminating Riba in foreign currency transactions by introducing global FinTech network. *International Journal of Islamic and Middle Eastern Finance and Management*, 14(3), 506–523. <https://doi.org/10.1108/IMEFM-01-2020-0035>
- Sellbom, M., & Goretzko, D. (2023). *The Cambridge Handbook of Research Methods and Statistics for the Social and Behavioral Sciences* (A. L. Nichols & J. Edlund, Eds.). Cambridge University Press. <https://doi.org/10.1017/9781009010054>
- Setiawan, F. (2025). *Fasset Hadirkan Zakat Kripto Pertama di Indonesia*. Coinvestasi.
- Shamsudin, M. F., Sanusi, A. M., & Abu, H. A. (2024). Mastering Probability and Non-Probability Methods for Accurate Research Insights. *Journal of Postgraduate Current Business Research*, 9(1), 38–53.
- Sholihin, M., Shalihin, N., Ilhamiwati, M., & Hendrianto, H. (2023). Maqasid-based consumption intelligence: an empirical model of its application to the intention of halal purchase. *International Journal of Ethics and Systems*, 39(2), 402–431. <https://doi.org/10.1108/IJOES-11-2021-0204>
- Shrestha, N. (2021). Factor Analysis as a Tool for Survey Analysis. *American Journal of Applied Mathematics and Statistics*, 9(1), 4–11. <https://doi.org/10.12691/ajams-9-1-2>
- Siddiqui, S. A., Wasif, R., & Hughes, M. A. (2024). *Understanding Muslim Philanthropy*. Edward Elgar Publishing. <https://doi.org/10.4337/9781035337293>
- Siregar, E. S., Manurung, W., Gunawan, R., Dzulkhairil, M., Siagian, R., Ardiansyah, M., Lubis, R., & Sitorus, A. (2023). Kepastian Hukum Aset Kripto sebagai Instrumen Investasi dalam Perspektif hukum islam dan Hukum Positif. *El-Mujtama: Jurnal Pengabdian*

- Masyarakat*, 4(1), 181–192.
<https://doi.org/10.47467/elmujtama.v4i1.3249>
- Sismarwoto, E. (2020). Freedom of contracts and dispute settlement between conventional banking and sharia banking. *International Journal of Economics and Business Administration*, 8(1), 285–291.
<https://doi.org/10.35808/ijeba/438>
- Sitompul, A. (2025). Crypto Based Money Laundering in Indonesia. *International Asia Of Law and Money Laundering (IAML)*, 4(1), 7–12. <https://doi.org/10.59712/iaml.v4i1.113>
- Slamet, R. (2024). Discussion on Islamic Finance and Crypto. *Islamic Capital Market*, 2(2).
<https://doi.org/https://doi.org/10.58968/icm.v2i2.602>
- Stupak, V. (2025). Economic Risk and Crypto: What Drives Global Digital Asset Adoption? *Journal of Risk and Financial Management*, 18(8), 453. <https://doi.org/10.3390/jrfm18080453>
- Suganda, A., Bunyamin, Dunnuraeni, M. A., Gunawan, A. I., & Permana, A. K. (2024). *The Relevance of Maqashid Al-Syari'ah in The Context of Modern Society* (pp. 84–91).
https://doi.org/10.2991/978-2-38476-279-8_11
- Sukarno, K. S., & Pujiyono. (2020). The Use of Crypto as a Payment Instrument. *Proceedings of the 3rd International Conference on Law and Governance (ICLAVE 2019)*.
<https://doi.org/10.2991/aebmr.k.200321.048>
- Sukma, A. (2025). *Modus Penipuan Kripto & Trading Saham Rp105 Miliar, Korban Diimingi Cuan 200%*. Kabar 24.
- Sunandar, A., Abd Karim, S. B., & Zolkafli @Zulkifly, U. K. (2025). Exploring Delphi Method Utilization Research Trends on Public-Private Partnership Infrastructure Studies. *Journal of Infrastructure Policy and Management*, 8(1), 21–40.
<https://doi.org/10.35166/jipm.v8i1.92>
- Surucu, L., Yikilmaz, I., & Maslakci, A. (2024). Exploratory Factor Analysis (EFA) in Quantitative Researches and Practical Considerations. *Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi*, 13(2), 947–965. <https://doi.org/10.37989/gumussagbil.1183271>
- Susanto, T. T. D., Yamtaz, S. U., Senda, T. A., & Mustaqim, M. Y. (2025). Analisis Penggunaan Teknik Delphi dalam Pengambilan Keputusan di Sektor Pendidikan: Studi Literatur. *JIIIP - Jurnal*

- Ilmiah Ilmu Pendidikan*, 8(6), 6511–6519.
<https://doi.org/10.54371/jiip.v8i6.8250>
- Sushanty, V. R. (2025). OJK's Authority after Law No. 4/2023: A Legal Certainty Perspective. *Equality : Journal of Law and Justice*, 2(2), 118–134. <https://doi.org/10.69836/equality-jlj.v2i2.281>
- Susilowardhani, S., Bidari, A. S., & Nurviana, R. (2022). REGULATION AND THE FUTURE OF CRYPTO IN INDONESIA. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, 6(3).
<https://doi.org/10.29040/ijebar.v6i3.6539>
- Tanujaya, B., Jeinne, M., & Rully, C. I. P. (2022). Likert Scale in Social Sciences Research: Problems and Difficulties. *FWU Journal of Social Sciences*, 89–101.
<https://doi.org/10.51709/19951272/Winter2022/7>
- Thomas, F. B. (2024). The role of purposive sampling technique as a tool for informal choices in a social Sciences in research methods. *Just Agriculture*, 2(5), 1–8.
- Trakic, A. (2013). The adjudication of Shari'ah issues in Islamic financial contracts: Is Malaysian Islamic finance litigation a solution? *Humanomics*, 29(4), 260–275. <https://doi.org/10.1108/H-05-2012-0011>
- Triple A. (2025). *Crypto Adoption is Growing Worldwide*.
- Tumewang, Y. K., Rahmawati Dewi, H., & Amin, H. (2025). Over a decade of maqashid sharia studies: a bibliometric analysis and direction for future research. *Journal of Islamic Accounting and Business Research*, 16(1), 25–52. <https://doi.org/10.1108/JIABR-08-2022-0207>
- Wacker, J. G. (2019). A theory of formal conceptual definitions: developing theory-building measurement instruments. *Journal of Operations Management*, 22(6), 629–650.
<https://doi.org/10.1016/j.jom.2004.08.002>
- Wahab, M. Z., & Naim, A. M. (2021). The Reviews on Sustainable and Responsible Investment (SRIs) Practices According to Maqasid Sharia and Maslahah Perspectives. *ETIKONOMI*, 20(2), 397–412.
<https://doi.org/10.15408/etk.v20i2.18053>
- Wan, A. W. M. Z., Zia, U.-H. H. M., & Zainuddin, W. N. R. A. (2024). The Scale Validation of Amanah Ikhtiar Malaysia's Microfinance Services and Household Socioeconomic Instrument. *The Journal of*

- Muamalat and Islamic Finance Research*, 162–183.
<https://doi.org/10.33102/jmifr.593>
- Wang, Q., Yu, G., & Chen, S. (2025). Understanding BRC-20: Hope or Hype. *IEEE Transactions on Computational Social Systems*, 1–16.
<https://doi.org/10.1109/TCSS.2025.3577174>
- Ward, O., & Sabrina, R. (2019). Understanding central bank digital currencies (CBDC). *Institute and Faculty of Actuaries*, 13(2), 263–268.
- Watkins, M. W. (2021). *A Step-By-Step Guide to Exploratory Factor Analysis with Stata*. Routledge.
<https://doi.org/10.4324/9781003149286>
- Widiyono, T. (2024). The Legal Position of the Indonesian Ulema Council in Applying the Principles of Islamic Law in Islamic Banking Operations in Indonesia. *Journal of Social Research*, 3(9).
<https://doi.org/10.55324/josr.v3i9.2261>
- Wipulanusat, W. , P. K. , S. R. A. , & S. J. (2020). Applying mixed methods sequential explanatory design to innovation management. In *The 10th International Conference on Engineering, Project, and Production Management . Singapore: Springer Singapore*, 485–495.
- Wiwoho, J., Trinugroho, I., Kharisma, D. B., & Suwadi, P. (2024). Islamic crypto assets and regulatory framework: evidence from Indonesia and global approaches. *International Journal of Law and Management*, 66(2), 155–171. <https://doi.org/10.1108/IJLMA-03-2023-0051>
- Yusuf, F., Sari, R., Yusgiantoro, P., & Soesilo, T. (2024). Stakeholders' Perceptions of the Peer-to-Peer Energy Trading Model Using Blockchain Technology in Indonesia. *Energies*, 17(19), 4956.
<https://doi.org/10.3390/en17194956>
- Zaini, F., & Mohd, B. S. S. (2021). Fatwa on Sharia Products and Its Role in The Development of Islamic Finance Industry. *Islamadina : Jurnal Pemikiran Islam*, 22(2), 189.
<https://doi.org/10.30595/islamadina.v22i2.11859>