ASH-SHIDQU: JOURNAL OF SHARIA ECONOMIC
Volume 1 , No 2 (2025)
ISSN : 3109 – 5216 (PRINT) - ISSN: 3109 – 5216 (ONLINE)
Page : 80 – 90

APPROPRIATE IN THE SHARIA ECONOMY: DIGITALIZATION FOR 3 KG LPG SUBSIDY

Akhmad Rofik[1], Cory Vidiati[2], Nur M. Faiz Amin[3]
[123]Fakultas Ekonomi Bisnis Islam Prodi Ekonomi Syariah Universitas Islam Bunga Bangsa Cirebon Cirebon, Indonesia
*email: akhmadrofik415@gmail.com, koriuibbc1@gmail.com, faiz@bungabangsacirebon.ac.id

Abstract

Implementation of manual recording in the distribution of 3 Kg LPG often faces problems of inaccuracy of targets and inefficiency. One of them is due to misuse by retailers, they take advantage of loopholes in the manual system to buy subsidized LPG from the base and resell it above the Highest Retail Price (HET) to the public, including those who should not be entitled. This practice causes price distortion and makes subsidies not fully enjoyed by the target audience. The 3-kg LPG subsidy program in Indonesia aims to provide affordable energy access for communities in need. This study seeks to explore the role of digitalization—specifically through the implementation of the *Merchant Apps*—in realizing the principle of *wadh'u asy-syai' fi mahallihi* (placing something in its proper context) within the framework of Islamic economics in the distribution of subsidized 3-kg LPG. This study uses a qualitative method with a case study at PT. Sinar Aurora Abadi. The analysis reveals that the *Merchant Apps* significantly enhance targeting accuracy through NIK (National Identification Number) verification and purchase limitations, while also improving distribution efficiency via digitized recording and reporting systems. These findings align with key principles of Islamic economics, including justice (*'adl*), public benefit (*maslahah*), moderation and efficiency (*iqtishad*), and trustworthiness (*amanah*). Nonetheless, the implementation of the *Merchant Apps* also faces several challenges, particularly in relation to digital infrastructure, digital literacy, and system reliability. This study concludes that digitalization through the *Merchant Apps* holds strong potential for optimizing the distribution of the 3-kg LPG subsidy, making it more targeted, efficient, and accountable in accordance with Islamic economic values. Continuous efforts to address these challenges and to develop the application inclusively are essential to achieving these goals.
Keywords : 3 Kg LPG Subsidy, Digitalization, Sharia Economy

Abstrak

Implementasi dalam pencatatan manual dalam penyaluran LPG 3 Kg seringkali menghadapi masalah ketidaktepatan sasaran dan inefisiensi. Salah satunya yaitu disebabkan karena penyalahgunaan oleh pengecer, mereka memanfaatkan celah dalam sistem manual untuk membeli LPG bersubsidi dari pangkalan dan menjualnya kembali

Article Info:
Submitted:
01/07/2025
Revised:
31/08/2025
Published:
04/09/2025

di atas Harga Eceran Tertinggi (HET) kepada masyarakat, termasuk yang seharusnya tidak berhak. Praktik ini menyebabkan distorsi harga dan membuat subsidi tidak dinikmati sepenuhnya oleh target sasaran. Program subsidi LPG 3 Kg di Indonesia bertujuan untuk menyediakan energi terjangkau bagi masyarakat yang membutuhkan. Penelitian ini bertujuan untuk mengeksplorasi peran digitalisasi, khususnya melalui implementasi Merchant Apps, dalam mewujudkan prinsip tepat guna (*wadh'u asy-syai' fi mahallihi*) dalam kerangka ekonomi syariah pada penyaluran subsidi LPG 3 Kg. Penelitian ini menggunakan metode kualitatif pada dengan studi kasus pada PT. Sinar Aurora Abadi. Hasil analisis menunjukkan bahwa *Merchant Apps* berkontribusi signifikan dalam meningkatkan ketepatan sasaran melalui verifikasi NIK dan pembatasan pembelian, serta meningkatkan efisiensi distribusi melalui digitalisasi pencatatan dan pelaporan. Temuan ini selaras dengan prinsip-prinsip ekonomi syariah seperti keadilan (*'adl*), *maslahah*, *iqtishad*, dan amanah. Meskipun demikian, implementasi *Merchant Apps* juga menghadapi tantangan terkait infrastruktur digital, literasi digital, dan stabilitas sistem. Penelitian ini menyimpulkan bahwa digitalisasi melalui *Merchant Apps* memiliki potensi besar untuk mengoptimalkan penyaluran subsidi LPG 3 Kg agar lebih tepat sasaran, efisien, dan akuntabel, sesuai dengan nilai-nilai ekonomi Islam. Upaya berkelanjutan dalam mengatasi tantangan dan mengembangkan aplikasi secara inklusif menjadi kunci untuk mencapai tujuan tersebut.

Kata Kunci : *Subsidi LPG 3 Kg, digitalisasi, ekonomi syariah*

A. INTRODUCTION

The 3-kilogram (kg) Liquefied Petroleum Gas (LPG) is considered a strategic and essential commodity in Indonesia, particularly for low-income households who rely on it for cooking and other basic domestic needs (Yusuf et al., 2024). To support equitable energy access and improve social welfare, the Indonesian government has long subsidized this commodity. However, the traditional distribution mechanism, which remains predominantly manual and non-digital, continues to face significant challenges. These include inefficiencies, mistargeting of recipients, leakage in distribution, and opportunities for misuse. Such issues not only reduce the effectiveness of the subsidy program but also pose risks to the national budget and undermine public trust (Prabowo, 2023).

The fundamental problem lies in the inability of the existing system to ensure that subsidies reach the intended recipients accurately and consistently. In practice, the absence of digital tracking and real-time data validation allows leakages and fraud to occur. Consequently, a portion of the subsidized LPG ends up in the hands of ineligible consumers, including commercial entities and middle-income households. This misallocation contradicts the subsidy program's primary objective to provide affordable and accessible energy to vulnerable groups. Moreover, this inefficiency results in budgetary waste and limits the state's capacity to expand other essential welfare programs.

To address these problems, the Government of Indonesia, through collaboration with Pertamina, the Ministry of Energy and Mineral Resources (ESDM), and the Directorate General of Oil and Gas (Ditjen Migas), has initiated the implementation of a digital solution known as "Merchant Apps" (Gintings & Suryanti, 2024). Merchant

Apps is a digital platform designed to facilitate the real-time monitoring, recording, and reporting of 3-kg LPG transactions. Unlike systems aimed at consumers, this application targets distribution actors, including agents and sub-agents, who handle the actual delivery of LPG cylinders. Merchant Apps enables every LPG transaction to be digitally documented, providing authorities with access to comprehensive, real-time data. This supports effective auditing, supervision, and targeting. Early evaluations reveal that the system improves operational efficiency, enhances data accuracy, and reduces fraudulent activities in the distribution process (Antara News, 2023; Ardiansyah et al., 2024).

In line with other selective distribution systems, such as the Pertalite fuel subsidy that uses QR codes for verification, the Merchant Apps platform introduces a more structured and transparent mechanism. However, what distinguishes this study from prior research is its application of Islamic economic theory, specifically the principle of wadh'u asy-syai' fi mahallihi (placing things in their rightful context), to evaluate the ethical dimensions of the distribution model (Chaliddin et al., 2024).

The urgency of this research lies in the necessity to bridge the gap between technological innovation and ethical policy evaluation in Indonesia. While the country continues to digitalize many aspects of public service delivery, integrating Islamic economic values into this process remains underexplored. Considering Indonesia's status as the world's largest Muslim-majority country, embedding principles such as justice, fairness, and proper allocation (wadh'u asy-syai' fi mahallihi) into policy implementation is both timely and essential. Furthermore, the digitalization process is not without obstacles. Limited digital literacy among distributors, gaps in digital infrastructure, and risks of data manipulation present persistent challenges (Akdyaputra & Sudarman, 2025). Therefore, a comprehensive evaluation that integrates both technological performance and Islamic ethical values is crucial to ensuring that digital solutions are not only effective but also just.

Several studies have assessed the technical, legal, or managerial aspects of digital systems in LPG distribution (Akdyaputra & Sudarman, 2025; Arifin, 2021; Nurbani, 2020). These works primarily focus on operational performance and policy implementation without critically engaging with normative frameworks rooted in Islamic economics. Consequently, there remains a research gap in understanding how digital tools like Merchant Apps can be aligned with the ethical imperatives of distributive justice as defined in Islamic jurisprudence.

This study aims to analyze the alignment of digital LPG subsidy distribution through Merchant Apps with the Islamic economic principle of wadh'u asy-syai' fi mahallihi. It will examine the effectiveness, challenges, and ethical implications of the system within the broader framework of distributive justice.

This research intends to fill a critical gap by offering a dual-perspective evaluation of digital LPG subsidy distribution, one rooted in technological and policy analysis, and the other in Islamic economic ethics. By examining the effectiveness, efficiency, and ethical alignment of the Merchant Apps platform, the study aspires to contribute to a more holistic understanding of digital governance in Indonesia. In doing so, it offers

theoretical insights and practical recommendations to improve the governance of strategic subsidies in line with both modern standards and Islamic principles.

B. LITERATURE REVIEW

Islamic economics, as a branch of the broader social sciences, offers a normative framework for addressing economic challenges by integrating moral and spiritual dimensions rooted in Islamic teachings. As defined by Mannan (Mannan, 1986), Islamic economics is "a social science which studies the economic problems of a people imbued with the values of Islam." Within this framework, economic behavior is not viewed in isolation from ethical considerations. The market, though essential, is not left unregulated, as human tendencies toward greed and exploitation necessitate a balance between individual freedoms and collective responsibility (Kholis, 2008).

Islamic economic theory advocates for a middle path, one that neither fully endorses the laissez-faire approach of classical economics nor accepts the heavy-handedness of command economies. Instead, it emphasizes justice (*'adl*), benevolence (*ihsan*), public interest (*maslahah*), and moderation (*wasathiyah*) as foundational values. Economic transactions are expected to reflect transparency, honesty, and trustworthiness, eschewing any form of fraud, exploitation, or market manipulation.

Mannan (Mannan, 1986) rejects the unchecked dominance of either producers or consumers, recognizing the risk of exploitative outcomes. He stresses the role of the state as a regulator that ensures the fair functioning of markets and protects vulnerable groups. The state is not expected to control the economy, but rather to ensure that economic activities contribute to distributive justice and social equity. This vision aligns with the broader goal of harmonizing individual and societal interests through shariah-compliant mechanisms.

Distributive justice is a core concern in public policy, particularly when dealing with publicly subsidized goods. Keraf and Imam (Keraf & Imam, 1998) explain that justice requires treating individuals according to their rights and responsibilities. Equal and fair access must be guaranteed to those entitled to state assistance. For the LPG subsidy program, this means ensuring that small households, micro-enterprises, farmers, and fishers receive the benefits intended for them. Practices such as stockpiling, price gouging, and monopolization violate these principles and disrupt the ethical foundation of distribution policy.

To correct misallocation and improve subsidy targeting, the Indonesian government has issued specific regulations including Ministerial Decree of Energy and Mineral Resources No. 37.K/MG.01/MEM.M/2023 and Directorate General of Oil and Gas Decree No. 99.K/MG.05/DJM/2023. These legal instruments lay out technical requirements for the distribution of 3-kg LPG refills, define distribution zones and schedules, and mandate the use of digital tools to increase transparency and accountability. Public outreach efforts have also been implemented to ensure successful adoption ahead of full execution on March 1, 2024.

The use of Merchant Apps marks a major innovation in the LPG distribution system. This digital platform enables agents and sub-agents to document and transmit transaction data in real time. By replacing manual recordkeeping with digital reporting, the system enhances data accuracy, strengthens monitoring, and supports policy

compliance across the supply chain. This effort reflects the Islamic principle of *wad'u al-shay' fī mahallihi* or "placing something in its rightful place," which stresses order, propriety, and justice in public administration.

Digitalization of distribution systems not only improves efficiency but also aligns with the ethical goals of Islamic economics. Proper targeting ensures that subsidies reach those who need them most. This alignment supports the objectives of distributive justice and strengthens public trust in government interventions. The transformation of subsidy governance through digital means thus represents both a technological and ethical advancement grounded in Islamic thought.

Despite these improvements, challenges still exist. Limited access to digital infrastructure, varying levels of digital literacy among distributors, and resistance to new systems could hamper implementation. For this reason, a comprehensive evaluation of both the operational and ethical dimensions of subsidy digitalization is essential. Islamic economics provides a meaningful framework for such an assessment, offering moral and theoretical tools to evaluate whether new systems are just, accountable, and socially beneficial.

C. METHODOLOGY

This study adopts a qualitative approach with a field research type and a case study design. The data were gathered directly from field observations and interviews, as well as from literature reviews, official websites, and other secondary sources that are not directly linked to the research object. The qualitative data in this study include a general overview of the research object, namely, the Merchant Apps platform, the procedures for its use, and the challenges hindering the effective implementation of the targeted subsidy program. The case study focuses on the 3-kg LPG distribution bases under the supervision of PT. Sinar Aurora Abadi Cirebon, specifically Base 1, Base 2, and Base 3.

D. RESULTS AND DISCUSSION

1. The 3-Kilogram LPG Subsidy Program

The conversion program from kerosene to Liquefied Petroleum Gas (LPG), launched in 2007 by the Directorate General of Oil and Gas (Ditjen Migas) under the Ministry of Energy and Mineral Resources (MEMR), was a strategic initiative aimed at addressing several critical issues: limited fossil fuel supply, the heavy burden of energy subsidies on the State Budget (APBN), and persistent irregularities in the distribution of subsidized kerosene. The core objectives of this policy were to diversify energy sources, reduce reliance on kerosene, curb subsidy misuse, improve the efficiency of state spending, and provide cleaner and more practical fuel alternatives for households and microenterprises.

The implementation of this program has been grounded in key regulatory frameworks, including Law No. 22 of 2001 on Oil and Gas, Presidential Regulation No. 5 of 2006 on National Energy Policy, Presidential Regulation No. 104 of 2007 on the supply, distribution, and pricing of 3-kg LPG cylinders, and Ministerial Regulation of MEMR No. 26 of 2009 on LPG provision and distribution.

In 2024, the government allocated a quota of 8.03 million metric tons (MT) for the 3-kg LPG program. The actual distribution exceeded the target, reaching approximately 8.27 million MT or 103% of the quota. The subsidy budget for the program reached IDR 80.9 trillion, accounting for about 45.2% of the national energy subsidy (Hidayatullah, 2024; Strateginews, 2025).

However, the program continues to face significant challenges, particularly in terms of targeting accuracy and distribution integrity. As of the end of November 2024, 57 million National Identity Numbers (NIKs) had been registered in the Merchant Apps system, with 86% representing households and 13.9% representing microenterprises. Despite these efforts, issues such as hoarding, illegal mixing (oplosan), and selling above the official retail price ceiling persist, resulting in an estimated state loss of IDR 13 trillion (Muhamad, 2024; Ombudsman RI, 2025).

To address these issues, the government, collaborating with Pertamina and other relevant institutions, has implemented a digital distribution system via the Merchant Apps platform. This application serves as a real-time transaction recording tool used by LPG distributors and agents at the base level. It enables transparent monitoring and control of the distribution process. Through this digital approach, the government aims to ensure a more accurate, efficient, and accountable distribution of subsidized LPG—reflecting the Islamic economic principle of justice, which emphasizes fair and equitable distribution of resources.

2. *Merchant Apps*

Historically, daily life in Indonesian society functioned independently of technological tools, relying heavily on manual processes. This reality differs greatly from the present era, where the widespread advancement of digital and information technology has brought profound changes. Such technological progress has greatly facilitated numerous aspects of life, particularly in the field of economics (Budiana & Amin, 2021). Such as the recording in the distribution of 3 Kg LPG which is already based on *Copyright ©* In order for the distribution and use of these subsidized goods to be on target, the Government of Indonesia has taken strategic steps by issuing the Decree of the Minister of Energy and Mineral Resources Number 37/MC. 01/MEM. M/2023 (Ardiansyah et al., 2024). This decision is classified as an administrative policy, its legal relevance is very high as a significant administrative guideline. This step demonstrates the government's commitment to address potential distribution issues, maintain the integrity of the 3 kg LPG subsidy program, and provide the necessary technical direction for all parties involved in the distribution chain. Thus, it is hoped that a more efficient and legally accountable recording system will be created. The recording system is named *Merchant Apps* Precise Subsidy, which contains a system for recording purchases to consumers digitally and is expected to ensure efficient distribution implementation, reduce the risk of abuse, and increase the level of accountability in the distribution process. This is in accordance with Islamic business principles *Iqtishad* (efficiency and moderation), Islam encourages the efficient use of resources and avoids waste (*ISRAF*). Efficient distribution means minimizing costs, time, and resources wasted in the distribution of goods and services. This is in line with

Islamic teachings that emphasize productivity and avoid any form of inefficiency that can harm others.

Merchant Apps is one of the digital platforms owned by Pertamina, in which it is a system for recording and reporting 3 Kg LPG buying and selling transactions at the Base. Digital-based is expected to facilitate and increase efficiency in transactions between Consumers and Bases.

a) The Effectiveness of *Merchant Apps* in Improving Target Accuracy

The collected data indicates that the implementation of the Merchant Apps significantly enhances the identification of eligible subsidy recipients. The digital recording system enables direct verification of consumers' Population Identification Numbers (NIK), thereby reducing the likelihood of purchases by individuals not registered in the subsidy recipient database.

This finding aligns with the principle of proper allocation in the sharia economy, in which resources, such as subsidies, are distributed to those who are rightfully entitled and in genuine need (*mustahiq*). Furthermore, limiting purchase volumes per NIK through the app effectively curbs large-scale repeat purchases by ineligible individuals or speculators. This directly supports the intended purpose of the subsidy program—to assist poor and vulnerable households—rather than benefiting upper-middle-income groups or businesses pursuing illicit gains.

From a sharia economic perspective, both the verification mechanism and purchase restrictions align with the principle of justice (*'adl*). Subsidies, as entitlements for specific groups, are distributed more fairly and equitably, minimizing the distortions often associated with manual distribution systems. The principle of *maslahah* (public welfare) is also upheld, as subsidized resources are more effectively directed toward enhancing the well-being of those in need.

The implementation of Merchant Apps in distributing the 3-kg LPG subsidy aligns with Islamic values and contributes positively to community welfare. However, the effectiveness of this system largely depends on how well it is managed and developed. Currently, the system has not yet made a fully significant impact in enhancing the fairness, transparency, and availability of 3-kg LPG for the wider community. LPG bases generally view the use of the Merchant Apps positively, noting that if the system is fully implemented and functions optimally, it can significantly enhance fairness, efficiency, and transparency in the distribution of the 3-kg LPG subsidy.

b) Merchant Apps' *Contribution* to Distribution Efficiency

The findings of this study underscore the enhanced efficiency in the LPG subsidy distribution process attributable to the adoption of Merchant Apps. The digitalization of transaction recording effectively reduces reliance on manual logbooks, which are susceptible to errors and inefficiencies. The integration of real-time sales and inventory data facilitates more effective inventory management and enables timely transaction reporting by LPG bases to agents and Pertamina.

Moreover, the implementation of digital reporting mechanisms expedites the data reconciliation process and mitigates discrepancies across records maintained by bases, agents, and Pertamina. This advancement indirectly contributes to the reduction of operational costs and strengthens accountability throughout the distribution network.

From the perspective of sharia economic principles, the concept of iqtishad (efficiency) is realized through the streamlined management and reporting of transactions enabled by the Merchant Apps platform. The minimization of time and resource wastage in administrative procedures supports the optimization of subsidy program objectives with greater cost-effectiveness. Furthermore, the increased transparency in data management aligns with the principle of amanah (trustworthiness), which is fundamental to the ethical stewardship of public resources

c) Challenges and Potentials of Merchant App Development

While making a positive contribution, the implementation of Merchant Apps also faces some challenges. Some bases reported problems related to internet network stability, especially in areas with inadequate infrastructure. In addition, the varying level of digital literacy among users (both base and consumers) is also a factor that needs to be considered.

The potential for the development of Merchant Apps in the future is huge. Integration with digital payment systems, more advanced inventory management features, and user feedback mechanisms can further increase the effectiveness and user-friendliness of the application.

Challenges related to infrastructure and digital literacy highlight the importance of equitable access to technology so that the benefits of digitalization can be felt by all levels of society, in accordance with the principles of social justice in Islam. The sustainable development of application features is also a manifestation of the principle of ihsan (doing the best) in the management of public programs.

The technical constraints in Merchant Apps are mainly related to system stability and server performance that occur at the end of the month, affecting the optimization and effectiveness of the on-target subsidy program. In addition, Merchant Apps are still not fully effective in increasing the effectiveness of the 3 Kg LPG subsidy program.

3. Appropriate in the Sharia Economy Through Digitalization

The implementation of *Merchant Apps* in the 3 Kg LPG subsidy program shows how digitalization can be an effective instrument in realizing appropriate principles in the framework of the sharia economy. This application, with its ability to verify recipients, limit purchases, and improve distribution efficiency, directly supports the allocation of subsidized resources to the right parties (*wadh'u asy-syai' fi mahallihi*).

The alignment between the goals of digitalization (efficiency, accountability, targeting) and sharia economic principles such as justice (*'adl*), public welfare (*maslahah*), efficiency (*iqtishad*), and mandate further strengthens the argument about the relevance of digitalization as an ethical solution in the management of subsidy programs.

However, the existing challenges, especially related to the digital divide, need to be overcome so that the implementation of digitalization does not create exclusion. Continuous efforts to improve infrastructure, digital literacy, and inclusive application development are crucial to optimize the benefits of digitalization in the spirit of Islamic social justice.

The bases interviewed gave a very positive response to the use of *Merchant Apps*. They see that this system is designed to make a significant contribution to improving the fairness, transparency, and availability of 3 kg LPG for the community. As in the Islamic economic theory put forward by Abdul Manan, *Righteousness*, emphasizes the importance of honesty, justice, and trust in all economic transactions. Every economic activity must be based on correct moral values and avoid all forms of fraud, fraud, and exploitation.

E. CONCLUSION

The implementation of Merchant Apps represents a strategic initiative by the Indonesian government to shift the distribution system of subsidized 3-kg LPG cylinders from a manual model to a digital framework. Backed by robust regulatory instruments, this transformation aims to improve target accuracy, distribution efficiency, and accountability. These objectives align with Islamic economic values, particularly the concept of *wad'u al-shay' fī mahallihi* (placing things in their proper place), as well as the principles of *'adl* (justice), *maslahah* (public interest), *iqtishad* (moderation), and *amanah* (trustworthiness).

Initial findings suggest that Merchant Apps offer positive contributions to the verification of beneficiaries through integration with national ID (NIK) systems and restrictions on excessive purchases. This helps reduce misuse and ensures that subsidies reach those who are truly eligible. The digital system also enhances efficiency in inventory tracking, transaction reporting, and stock monitoring.

Nevertheless, several challenges remain. Technical limitations such as unstable system performance, inadequate internet infrastructure in some areas, and varied levels of digital literacy among users continue to hinder full optimization. Furthermore, the persistence of offline transactions and the continued involvement of intermediary retailers reveal gaps in enforcement and monitoring.

To improve outcomes, ongoing efforts are necessary to strengthen digital infrastructure, enhance user training, and further develop inclusive and adaptive application features that accommodate diverse local conditions. The positive reception from LPG bases indicates that with adequate support, Merchant Apps can evolve into a powerful tool for promoting a more just, efficient, and transparent subsidy distribution system in line with Islamic economic teachings.

This study, however, is subject to certain limitations. The data collected primarily reflects the perspectives of LPG base operators, which may not fully capture the experiences of end-users or insights from higher-level regulators and policy designers. These limitations constrain the generalizability of findings across broader stakeholder groups. Future research is encouraged to examine the implementation of Merchant Apps in regions with varying socio-economic profiles and levels of digital

infrastructure. Comparative studies across urban and rural contexts could offer deeper insights into the contextual factors that shape the effectiveness of digital subsidy distribution mechanisms. In addition, incorporating consumer feedback and policy-level evaluations may lead to a more comprehensive understanding of the system's strengths, weaknesses, and long-term sustainability.

REFERENCES

Akdyaputra, R., & Sudarman, D. (2025). Efektivitas Merchant Apps My Pertamina dalam Pengawasan Pendistribusian LPG 3 Kg Agar Subsidi Tepat Sasaran di Jakarta Selatan (Studi Kasus Rantai Pasok). *Jurnal Manajemen Pendidikan Dan Ilmu Sosial*, *6*(2), 1507–1519. https://doi.org/10.38035/jmpis.v6i2.4255

Antara News. (2023). *Pertamina Terapkan Digitalisasi Penyaluran Lpg Subsidi 3 Kilogram—Antara News*. https://www.antaranews.com/berita/3480585/pertamina-terapkan-digitalisasi-penyaluran-lpg-subsidi-3-kilogram?utm_source=chatgpt.com

Ardiansyah, A., Rahmatiar, Y., & Abas, M. (2024). Effectiveness Of The Distribution Of 3 Kg Liquefied Petroleum Gas (LPG) Cylinders Targeted According To Presidential Regulation Number 38 Of 2019 On The Provision, Distribution, And Price Determination Of Liquefied Petroleum Gas For Fishing Vessels For TA. *Dusturiyah: Jurnal Hukum Islam, Perundang-Undangan Dan Pranata Sosial*, *14*(2), 266–281.

Arifin, M. Z. (2021). Konfigurasi Jaringan Supply Chain Pada Distribusi Gas Lpg 3 Kg Di Indonesia. *JITMI (Jurnal Ilmiah Teknik Dan Manajemen Industri)*, *4*(1), Article 1. https://doi.org/10.32493/jitmi.v4i1.y2021.p1-9

Budiana, B., & Amin, N. M. F. (2021). Faktor-Faktor Yang Mempengaruhi Keputusan Konsumen Dalam Pembelian Secara Online. *Ecopreneur : Jurnal Program Studi Ekonomi Syariah*, *2*(1), 26. https://doi.org/10.47453/ecopreneur.v2i1.302

Chaliddin, C., Khalil, M., & Nazaruddin, N. (2024). Adil Dalam al-Quran: Konsep, Implementasi, Dan Relevansinya Dalam Kehidupan Modern. *Siyasah Wa Qanuniyah: Jurnal Ilmiah Ma'had Aly Raudhatul Ma'arif*, *2*(2), 33–50.

Gintings, I. P., & Suryanti, N. (2024). Digital Data Collection of 3 kg LPG Purchasers—Transformation of 3 kg LPG Subsidy as Implementation of the Minister of Energy and Mineral Resources Decree No. IX.37.K/KMG.01/MEM.M/2023. *Jurnal Cita Hukum*, *12*(3), Article 3. https://doi.org/10.15408/jch.v12i3.42158

Hidayatullah, M. R. (2024). *Realisasi Anggaran untuk LPG 3 Kg Mencapai Rp80,9 Triliun pada 2024*. https://ekbis.harianjogja.com/read/2024/12/31/502/1199501/realisasi-anggaran-untuk-lpg-3-kg-mencapai-rp809-triliun-pada-2024?utm_source=chatgpt.com

Keraf, S., & Imam, R. H. (1998). Etika bisnis. *Yogyakarta: Kanisius*.

Kholis, N. (2008). Masa depan ekonomi islam dalam arus trend ekonomi era global. *Unisia*, *31*(68).

Mannan, M. A. (1986). *Islamic economics: Theory and practice;(foundations of Islamic economics)*. Westview Press.

Muhamad, N. (2024). *41,8 Juta NIK Sudah Terdaftar sebagai Penerima Subsidi LPG 3 Kg* [Databoks.katadata.co.id]. https://databoks.katadata.co.id/ekonomi-makro/statistik/523a4d6b29935f9/418-juta-nik-sudah-terdaftar-sebagai-penerima-subsidi-lpg-3-kg

Nurbani, S. N. (2020). Rancangan Distribusi LPG 3 Kg Berdasarkan Kebijakan Distribusi Sistem Tertutup Di Wilayah Pemasaran Kota Bandung. *J@ti Undip : Jurnal Teknik Industri*, *14*(3), 149. https://doi.org/10.14710/jati.14.3.149-162

Ombudsman RI. (2025). *Menakar Solusi Gas Subsidi bagi si Miskin Bukan si Kaya*. https://ombudsman.go.id:443/perwakilan/news/r/pwkmedia--menakar-solusi-gas-subsidi-bagi-si-miskin-bukan-si-kaya---?utm_source=chatgpt.com

Prabowo, E. (2023). *Model Strategi Transformasi Elpiji Bersubsidi di Indonesia*. http://repository.ipb.ac.id/handle/123456789/117081

Strateginews. (2025, February 1). Larangan Pengecer Distribusikan LPG 3 Kg Berdampak pada Inflasi dan Kesulitan Besar Bagi Masyarakat Kecil, Batalkan! *Strategi News*. https://strateginews.id/2025/02/01/larangan-pengecer-distribusikan-lpg-3-kg-berdampak-pada-inflasi-dan-kesulitan-besar-bagi-masyarakat-kecil-batalkan/

Yusuf, A., Studi, P., Ilmu, M., & Narotama, U. (2024). *Penerapan Prinsip Good Governance Dalam Pendistribusian Liquefied Petroleum Gas (Lpg) Bersubsidi Berdasarkan Keputusan Menteri Energi Dan Sumber Daya Mineral Nomor 37/Mc.01/Mem.M/2023*. *5*(1), 914–925.

https://subsiditepatlpg.mypertamina.id/infolpg3kg