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Thematic Analysis of the Ḥadīth "*Innamā al-Bay‘ ‘an Tarāḍin*" on Vending-Machine and AI-Mediated Transactions within the Framework of Ḥadīth al-Aḥkām

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Abstract: The automation of commercial exchange detaches contracts from the bodily co-presence and verbal formulas that classical fiqh are treated as visible evidence of consent. Vending machines and artificial-intelligence (AI) agents now conclude sales autonomously, raising a precise juristic question under the ḥadīth al-aḥkām "*Innamā al-bay' 'an tarāḍin*" (sale is valid only by mutual consent): can tarāḍīn subsist without direct human enactment? Using a qualitative library design and thematic (*mawḍū‘ī*) methodology, this article performs a fresh *takhrīj* of the ḥadīth, reconstructs the juristic debate over the ontology of consent into four factions, and applies the results to autonomous commerce. The *takhrīj* corrects a recurring error in secondary literature. The operative chain in Ibn Mājah runs through Dāwūd b. Ṣāliḥ al-Madanī and is corroborated by parallels in al-Bukhārī's Tārīkh, Ibn Ḥibbān, and al-Bayhaqī, alongside a supporting narration from Abū Hurayra. Graded sound (*ṣaḥīḥ/ḥasan*), the ruling rests on firm ground rather than a lone weak report. The analysis argues that a vending machine acts merely as an instrument of the owner's standing offer rather than an independent agent, aligning it with *bay‘ al-mu‘āṭāh* (implied consent) and fully preserving tarāḍīn. Conversely, the frontier of risk lies in AI systems that personalize prices and engineer choices, threatening tarāḍīn through manufactured volition and algorithmic opacity. Consequently, this article concludes that the ḥadīth functions less as a verdict on machines and more as an enduring normative standard of authentic, informed consent against which digital commerce must be measured.

Keywords: ḥadīth al-aḥkām; tarāḍīn; bay' al-mu'āṭāh; vending machine; artificial intelligence; informed consent.

Abstrak: Otomatisasi pertukaran komersial telah melepaskan akad dari kehadiran fisik dan *ṣīgah* lisan yang dalam fikih klasik dipandang sebagai bukti kasatmata atas kerelaan (*tarāḍīn*). Mesin penjual otomatis dan agen kecerdasan buatan (AI) kini merampungkan transaksi secara otonom tanpa pertemuan fisik antara penjual dan pembeli. Realitas ini memicu persoalan yuridis krusial yang diuji melalui ḥadīth al-aḥkām "*Innamā al-bay'an tarāḍin*": apakah *tarāḍīn* dapat tetap terpenuhi ketika tidak ada intervensi manusia pada setiap tahapan transaksi? Dengan desain kualitatif kepustakaan dan metode tematik (*mawḍū'ī*), artikel ini melakukan *takhrīj* ulang terhadap hadis tersebut, memetakan perdebatan ontologi kerelaan ke dalam empat faksi fukaha, serta menerapkannya pada perdagangan digital.Hasil *takhrīj* mengoreksi kekeliruan berulang dalam literatur sekunder; jalur periwayatan Ibn Mājah yang melalui Dāwūd b. Ṣāliḥ al-Madanī terbukti memiliki penguat (shawāhid) dalam Tārīkh al-Bukhārī, Ibn Ḥibbān, dan al-Bayhaqī melalui jalur Abū Hurayra, sehingga statusnya dinilai berkualitas baik (*ṣaḥīḥ/ḥasan*) dan memiliki kehujahan yang kuat.Analisis fikih menunjukkan bahwa mesin penjual otomatis hanyalah instrumen dari penawaran berkelanjutan (standing offer) milik pemiliknya, bukan agen akad yang mandiri. Oleh karena itu, model ini dikategorikan sebagai *bay'al-mu'āṭāh* yang sah dan mempertahankan unsur kerelaan secara utuh. Sebaliknya, titik rawan distorsi tarāḍīn terletak pada sistem AI yang mempersonalisasi harga dan merekayasa pilihan, di mana ancamannya berupa manipulasi kehendak (manufactured volition) di tengah keburaman algoritma (algorithmic opacity). Artikel ini menyimpulkan bahwa hadis tersebut tidak sekadar menjadi vonis hukum atas mesin, melainkan berfungsi sebagai standar normatif yang menguji otentisitas kerelaan dalam komersialisasi algoritmik.

Kata Kunci: hadis ahkam; *tarāḍīnn*; *bay' al-mu'āṭāh*; mesin penjual otomatis; kecerdasan buatan; informed consent

1. Introduction

Every act of buying and selling once required two bodies in the same place and two tongues uttering a formula. Offer and acceptance, *ījāb* and *qabūl*, were spoken across a counter, and the jurists could read consent off that audible exchange. Digital commerce has dissolved that scene. Transactions that depended on human presence now resolve themselves inside algorithmic systems that price, recommend, and settle without a person intervening at each step (Zhang et al., 2022). The expansion of the digital economy across the territories of the Global South, Indonesia included, has been rapid enough that the legal imagination has struggled to keep pace, and the institutions of Islamic law have inherited a backlog of unresolved cases (Putri et al., 2025).

The vending machine is the most domesticated face of this transformation. An automated device standing in an office lobby or a railway concourse sells goods directly to a consumer with no intermediary present (Sujana et al., 2019). The owner stocks it and departs; the machine displays its wares and prices and waits. A buyer inserts coins, banknotes, a debit card, or scans a QRIS code, selects an item, and receives it, the entire encounter passing without a word exchanged with another human being (Sakti et al., 2021). Artificial intelligence intensifies the same logic and adds something the vending machine lacks. Chatbots and virtual assistants now predict consumer needs, generate recommendations, and complete payment automatically, so that the system behaves as an active participant in the bargain rather than a passive shelf (Freitas & Lotufo, 2024; Guna & Fanani, 2025).

This shift presses on a principle that classical jurisprudence is treated as foundational. A valid sale in Islamic law answers to moral and ethical conditions beyond its formal requirements, and among these the mutual consent of the parties is decisive (Mughits, 2017). The ḥadīth al-aḥkām *"Innamā al-bay' 'an tarāḍin"*, reported on the authority of Abū Sa'īd al-Khudrī, fixes consent as the hinge on which validity turns. Where consent is absent, a contract collapses even when its other conditions are met, which is why coercion and deception void a sale that is otherwise correct in form (Sanjaya, 2022). The principle is unambiguous in the abstract. Its application to a transaction in which no human enacts the seller's side, and in which the buyer's assent may be reduced to a tap on a screen, is anything but.

The scholarly conversation around digital and AI-mediated commerce in Islamic law has grown quickly, yet it has clustered around a familiar set of categories. Studies have examined contractual validity, the prohibition of *ribā*, the problem of *gharar*, and the permissibility of traded goods, mapping new technologies onto inherited rubrics (Aziz, 2024; Guna & Fanani, 2025). Work on AI and Islamic finance has begun to confront questions of oversight and accountability when an algorithm, rather than a person, sets the terms of a deal (Arsyad et al., 2025; Hidayanti et al., 2025). A parallel literature in Islamic ethics has asked whether AI can be benchmarked against plural moral frameworks at all, and whether the data that fuels it might be reconceived through categories drawn from the tradition itself (Elmahjub, 2023; Nashwan, 2025). Within thematic ḥadīth studies, scholars have argued that the *mawḍū'ī*

method is precisely the instrument needed to make the Prophetic corpus speak to problems its first audience never imagined (Atikah, 2025).

Reading this literature together reveals four contending positions on the question that governs the cases at hand, the question of where consent resides and how it is known. The first is a formalist-textualist position, associated with the dominant Shāfi'ī view and with the Ẓāhirīs, which insists that consent must be externalized in a verbal formula, so that contracting without spoken offer and acceptance is suspect at its root. The second is a substantivist position rooted in custom, carried by the Ḥanafī, Mālikī, and Ḥanbalī schools and sharpened by al-Ghazālī, Ibn Taymiyya, and Ibn al-Qayyim, which holds that consent is an inner state read off any indicator that custom recognizes, so that silent and conduct-based contracting is valid. The third is a maqāṣid-oriented contemporary position, voiced by jurists such as Yūsuf al-Qaraḍāwī and echoed in modern *fiqh* councils, which translates consent into the language of informed agreement and ties its validity to transparency and disclosure (Gustin & Yazid, 2025). The fourth is a critical techno-ethical position, emerging from the AI-ethics literature, which warns that algorithmic systems can manufacture the appearance of consent while hollowing out its substance, and which therefore demands governance rather than mere doctrinal accommodation (Elmahjub, 2023; Putri et al., 2025).

The gap is now visible. Existing studies treat AI transactions through the lens of *'aqd*, *ribā*, and *gharar*, and they treat the consent ḥadīth as a settled premise to be cited rather than a text to be interrogated. Few subject the ḥadīth itself to a rigorous *takhrīj* before building an argument on it, and fewer still distinguish, in *fiqh* terms, between a machine that merely executes a human offer and a system that originates terms of its own. The conflation matters, because the legal status of the two is not the same. Treating a vending machine as a contracting party generates pseudo-problems about its lack of legal capacity, while treating a genuinely autonomous AI as a neutral instrument conceals the real danger of consent.

This article advances a single thesis through accumulation. The vending machine is the easy case, and the consent principle disposes of it cleanly once the machine is correctly classified as an instrument of the owner's standing offer rather than an agent. The hard case lies with AI proper, where the threat to *tarāḍīn* is the engineering of choice under conditions of opacity, and where

the ḥadīth functions as a critical standard against which contemporary commerce falls short. To establish this, the study proceeds in four movements. It first reconstructs the ḥadīth through *takhrīj* and *fiqh al-ḥadīth*, correcting an authenticity claim that has circulated uncorrected in the secondary literature. It then excavates the ontological dispute over consent and maps its factions. It applies the result to vending-machine transactions in fiqh al-*mu'āmalah*. It closes by turning to AI as an agent, where the critique of the present order becomes unavoidable.

This study is qualitative and rests on library research, drawing data from textual sources rather than fieldwork. The governing method is thematic ḥadīth interpretation, the *mawḍū'ī* approach, which gathers the reports bearing on a single theme and reads them as a coherent body before drawing a ruling (Atikah, 2025). Following the procedure formalized for thematic study, the analysis defines the theme of consent in commercial exchange, assembles the relevant Prophetic reports together with the Qur'anic verse that anchors them, verifies their transmission, examines the wording and the occasion of utterance, and only then formulates the principle that the corpus yields. The method is well suited to a problem the first transmitters could not have foreseen, because it treats the tradition as a reservoir of principles available for fresh application rather than a closed list of rulings (Haqiqy, 2024; Muzaini & Arif, 2023).

The analysis moves through three layers, each with its own sources and its own standard of rigor. The first layer is text critical. It establishes the wording of the ḥadīth, traces its chains across the canonical and supplementary collections, identifies corroborating narrations, and reports the gradings of the ḥadīth critics, so that the ruling does not rest on an unexamined attribution. The second layer is juristic. It performs *taḥqīq al-manāṭ*, the determination of how the legal cause applies to a new fact pattern, by reading vending-machine and AI transactions against the established categories of fiqh al-mu'āmalah, principally *bay' al-mu'āṭāh*, *wakālah*, and *ahliyyah*. The third layer is contemporary and evaluative. It applies the resulting principle to present practice through the objectives of the law, *maqāṣid al-sharī'ah*, and it submits the status quo of algorithmic commerce to criticism where that practice strains the principle (Gustin & Yazid, 2025; Syamsuddini, 2022).

The primary sources comprise the canonical ḥadīth collections, above all the Sunan of Ibn Mājah, together with the supplementary collections that carry parallel transmissions, namely the Ṣaḥīḥ of Ibn Ḥibbān, the Sunan al-Kubrā of al-Bayhaqī, and al-Bukhārī's Tārīkh al-Kabīr, supplemented by the ḥadīth gradings of later critics. Classical fiqh is represented by works such as Ibn Qudāmah's al-Mughnī and al-Nawawī's al-Majmū' and Rawḍat al-Ṭālibīn, which preserve the schools' reasoning on consent and conduct-based sale. The contemporary layer draws on peer-reviewed journal articles indexed internationally, prioritizing recent studies with verifiable digital object identifiers. Validity is pursued through triangulation across the *takhrīj* sources and through honest reporting of weakness in transmission wherever it appears, since a ruling built on a misreported chain is a ruling built on sand.

Results and Discussion

The development of AI has introduced dynamics that the older law of sale never had to absorb. A contract once concluded face to face in a simple form can now unfold digitally, automatically, and through systems whose internal logic is opaque to the parties (Arsyad et al., 2025). The challenge for Islamic law is to keep the substance of its principles intact while the form of transactions mutates around them. The ḥadīth *"Innamā al-bay' 'an tarāḍin"* is the natural test site, because consent is exactly the substance that automation appears to threaten. The discussion that follows reconstructs the ḥadīth, isolates the philosophical dispute it conceals, and applies the result first to the vending machine and then to AI as an agent.

The Ḥadīth "Innamā al-Bay' 'an Tarāḍin": Takhrīj, Authenticity, and Fiqh al-Ḥadīth

Ḥadīth is the second source of Islamic law, and in the terminology of the discipline it embraces whatever is attributed to the Prophet in speech, deed, or tacit approval (Haqiqy, 2024). Within the law of transactions, a small cluster of reports furnishes the foundational rules, and their function is to specify and apply the more general commands of the Qur'an so that they can be lived (Muzaini & Arif, 2023). The report under study reads in its core wording as follows.

«إِنَّمَا الْبَيْعُ عَنْ تَرَاضٍ»

> "A sale is only by mutual consent." The fuller chain transmitted by Ibn Mājah runs: al-'Abbās b. al-Walīd al-Dimashqī narrated to us, Marwān b. Muḥammad narrated to us, 'Abd al-'Azīz b. Muḥammad narrated to us, from Dāwūd b. Ṣāliḥ al-Madanī, from his father, who said, I heard Abū Sa'īd al-Khudrī say, the Messenger of Allah said, "A sale is only by mutual consent" (Ibn Mājah, no. 2185).

The vocabulary repays attention before the ruling is drawn from it. The particle *innamā* is an instrument of restriction in Arabic, confining the predicate to the subject, so that the sentence does not merely describe a sale as involving consent but asserts that a sale exists *only* where consent does. The noun *al-bay'* denotes the transaction of exchange. The preposition *'an* carries the sense of arising from or proceeding out of, so that consent is figured as the source from which the valid sale issues. The verbal noun *tarāḍin*, on the pattern of mutual action, names a reciprocal pleasure, a willing assent flowing both ways between seller and buyer. Read together, the words make consent the efficient condition of validity rather than a desirable accompaniment to it.

The occasion of utterance grounds this reading in a concrete dispute over coercion. Abū Sa'īd reports that a merchant arrived with dates and barley during a famine, and the people, pressed by hunger, asked the Prophet to fix a price for the goods. He declined to impose one and declared that a sale proceeds only by mutual consent (al-Albānī, Ṣaḥīḥ Ibn Mājah, no. 1792; Sanjaya, 2022). The refusal to set a compulsory price is the key. A sale forced on an owner at a price he has not accepted is a sale without his *riḍā*, and the ḥadīth excludes it. The principle generated is therefore the invalidity of the coerced sale, *bay' al-mukrah*, and by extension the invalidity of any transaction in which one party's assent has been manufactured rather than freely given. A longer recension preserved by Ibn Ḥibbān frames the saying within a sermon warning against deceit, envy, and bidding up the price of goods already under negotiation, which situates consent inside a wider ethic of honest dealing.

The authenticity of the report deserves more careful treatment than it usually receives, because a claim has been circulated in the secondary literature that misstates the chain. It is sometimes asserted that the sole transmitter of the report is Abū Yaḥyā al-Qaṭṭāt, whom the critics weakened, and that the ḥadīth is therefore feeble. This conflicts between two different chains. The transmission carried by Ibn Mājah does not pass through Abū Yaḥyā al-Qaṭṭāt

at all; it passes through Dāwūd b. Ṣāliḥ al-Madanī, identified by the commentators as Ibn Dīnār al-Tammār, from his father Ṣāliḥ, from Abū Sa'īd. Correcting the chain changes the verdict, because this transmission is corroborated rather than isolated.

The corroboration is substantial. The same report, through 'Abd al-'Azīz b. Muḥammad al-Darāwardī with this very chain, is preserved by al-Bukhārī in al-Tārīkh al-Kabīr by way of 'Abd al-'Azīz b. 'Abd Allāh, by Ibn Ḥibbān in his Ṣaḥīḥ through Sa'īd b. 'Abd al-Jabbār al-Qurashī in a fuller wording, and by al-Bayhaqī in the Sunan al-Kubrā through Yaḥyā b. Sulaymān b. Naḍla, three independent routes converging on the same isnād. A separate supporting narration, a *shāhid* on the authority of Abū Hurayra, appears in the Musnad of Aḥmad, the Sunan of Abū Dāwūd, and the Jāmi' of al-Tirmidhī. On the strength of these parallels the report rises well above the level of a lone weak transmission. Ibn Ḥibbān admitted it into his Ṣaḥīḥ, the later ḥadīth critic al-Albānī graded it sound in his Ṣaḥīḥ Ibn Mājah, and the encyclopedic gradings classify it as at least sound by way of its supports.

The thematic method requires that the consent ḥadīth be read alongside the cluster of reports that govern trade ethics rather than in isolation, since a principle drawn from one text gains its contours from the company it keeps. The report that the two parties to a sale retain their option so long as they have not parted, and that honesty and disclosure draw blessing upon the transaction while concealment and falsehood efface it, sets consent within an ethic of candor. The maxim that there shall be no harm and no reciprocation of harm, *lā ḍarar wa lā ḍirār*, places an outer limit on what a consenting party may be made to bear. The principle that Muslims are held to their stipulations, *al-muslimūn 'alā shurūṭihim*, binds the parties to the terms they have genuinely accepted. Read as a body, these reports show that consent in the Prophetic conception is not a bare formal trigger that, once pulled, immunizes whatever follows. It is the keystone of an arch whose other stones are honesty, the absence of harm, and fidelity to agreed terms. A transaction that secures assent while inflicting concealed harm, or while binding a party to terms he never truly grasped, fails the corpus even if it satisfies the single text in isolation. This is the interpretive surplus that the thematic method yields and that a piecemeal citation of the consent ḥadīth would miss (Atikah, 2025; Muzaini & Arif, 2023).

Even were a critic to insist on weakness in one route, the meaning of the ḥadīth stands on independent footing. Its content is fixed by the explicit text of the Qur'an, which permits the consumption of wealth through *"tijāratan 'an tarāḍin minkum"*, commerce arising from mutual consent among you (Q. al-Nisāʾ 4:29). The jurists who derive the requirement of consent cite this verse and adduce the ḥadīth in support, and the schools concur on the meaning whatever their reservations about a particular chain. The practice of the Companions confirms it, and no contrary report competes with it. The principle that a sale is valid only by mutual consent therefore enjoys the rare combination of an established text, a sound supporting tradition, and a consensus on meaning. The earlier claim of bare weakness, repeated without *takhrīj*, is an artifact of citing a secondary summary rather than the chains themselves.

The commentary tradition draws out a further implication that bears directly automated exchange. The commentators on Ibn Mājah, among them al-Sindī, read the restriction in the ḥadīth as excluding the sale of one compelled, and they connect it to the wider doctrine that the owner of a commodity may sell at the price he accepts and may refuse the price he does not. To protect this assent at the moment of contracting, the jurists developed the option of the session, *khiyār al-majlis*, whereby the parties retain the right to withdraw until they physically separate, a device reported on the authority of al-Shāfi'ī, al-Thawrī, and al-Awzā'ī, who held that the perfection of a sale is realized by the separation of the two bodies after the contract is struck (Mughits, 2017; Sanjaya, 2022). The mechanism externalizes a concern for the reality of consent across the span of the transaction rather than at a single instant. Automated exchange compresses that span to milliseconds and remove the bodily separation that once marked it, which raises a genuine question about when, in an instantaneous machine sale, the window for retraction opens and closes. The answer the tradition suggests is that the protective intent of the option survives even where its physical form does not, and it migrates into the consumer's right to information before purchase and to remedy after a defect.

Two consequences follow for what comes next. The rule that the analysis will carry into the digital cases is not a fragile inference from a doubtful report but a well-supported principle. And the principle is specific in

its target. It voids the sale in which assent is absent, coerced, or counterfeit, which is precisely the failure that automation and algorithmic manipulation might be thought to introduce. The remainder of the discussion asks whether they do.

The Ontology of Riḍā and the Juristic Factions

Before a verdict can be reached on machines, a prior question must be settled, and it is a question the ḥadīth poses without answering. Consent is an internal state. *Riḍā* sits in the heart, invisible and immeasurable, and the law cannot legislate over a thing it cannot observe. What the law can do is fix on an external sign, an *amāra*, that stands as reliable evidence of the inner state. The whole dispute that governs the digital cases is a dispute about which sign the law should accept, and it is a dispute that predates the vending machine by roughly a thousand years.

The first faction reads the required sign as verbal. On this formalist-textualist view, carried by the dominant position of the Shāfi'ī school and by the Ẓāhirīs, the inner consent must be externalized in an explicit formula of offer and acceptance, and a sale concluded by mere exchange of goods without that formula is defective. Sanjaya records the position precisely, noting that the Shāfi'īs, together with the Shī'a and the Ẓāhirīs, hold the form of mutual consent to be oral speech and therefore require a spoken contract in sale (Sanjaya, 2022). The motive is protective. A verbal formula leaves a clear record of assent and forecloses later dispute over whether a party truly agreed. The blind spot is equally clear. A rule that demands speech struggles with the vast ordinary commerce that has always proceeded in silence, and it risks invalidating transactions that everyone involved understood perfectly well.

The second faction reads the sign as customary. On this substantivist view, anchored in the Ḥanafī, Mālikī, and Ḥanbalī schools and given its sharpest theoretical statement by al-Ghazālī, Ibn Taymiyya, and Ibn al-Qayyim, consent is the inner reality and any indicator that custom treats as expressing it suffices, whether speech, writing, gesture, or conduct. The governing maxim states that what counts in contracts is intentions and meanings rather than words and forms, *al-'ibra fī al-'uqūd bi-l-maqāṣid wa-l-ma'ānī lā bi-l-alfāẓ wa-l-mabānī*. Sanjaya draws out the grammatical argument that supports this reading. The word *tarāḍin* in the Qur'anic verse is indefinite, *nakirah*, and an indefinite noun admits of many forms, so consent may be

shown in whatever manner demonstrates mutual pleasure and is not confined to oral utterance (Sanjaya, 2022). On this view the ḥadīth requires the reality of assent and is indifferent to its vehicle.

The third faction translates the inheritance into a modern idiom. Contemporary jurists working in the maqāṣid tradition read *tarāḍīn* as informed consent and locate its validity in the conditions that make assent real under modern circumstances, namely adequate information, comprehension, and freedom from deception. Al-Qaraḍāwī is representative in holding that pleasure in a sale cannot be a mere formality and must be accompanied by clarity of information and full awareness, since modern transactions move quickly and grow complex enough that a party may assent to terms he has not understood (Gustin & Yazid, 2025). This faction further binds consent to the objectives of the law, treating it as the mechanism by which the law secures wealth, *ḥifẓ al-māl*, and forestalls injustice in exchange (Alamsyah et al., 2026). Its strength is its grip on the actual pathologies of contemporary commerce. Its risk is that informed consent, if set too high, would avoid ordinary transactions that no one finds objectionable.

The fourth faction is not juristic in origin and approaches consent from the side of technology. Drawing on the AI-ethics literature, it observes that algorithmic systems can produce every outward sign of agreement while corroding the autonomy that gives agreement its worth. Elmahjub argues that AI cannot be benchmarked against a single ethical yardstick and must be assessed against the plural commitments a tradition holds, which for the law of sale means measuring a system against the substance of *tarāḍīn* rather than its surface (Elmahjub, 2023). Nashwan presses further, reframing the data that AI extracts as a kind of endowment owed back to the community, which casts the silent harvesting of consumer data during a transaction as a wrong even where formal consent was clicked (Nashwan, 2025). This faction supplies the critical edge the others lack, and it sets the agenda for the final movement of this article.

The occasion of the ḥadīth sharpens the factional dispute in a way that reaches forward to algorithmic markets. The Prophet refused to fix a price during famine and grounded the refusal in consent, which the later jurists elaborated into a doctrine on price control, *tas'īr*. The mainstream position treated compulsory pricing as an infringement on the owner's *riḍā* and

permitted it only to repel manifest injustice, while a minority allowed it more readily where the public interest demanded. The dispute is alive again in a new register. A market in which an algorithm sets a different price for each buyer, calibrated to the maximum each can be induced to pay, inverts the scenario the ḥadīth addressed. The classical worry was a price imposed on the seller against his will; the contemporary worry is a price imposed on the buyer without his knowledge. Both offend the same principle, since each severs the price from the free and informed assent of the party who must bear it. Reading the factions through this lens shows that the substantivist and maqāṣid positions, which fix on the reality of assent rather than its form, are better equipped than strict formalism to name the wrong in personalized pricing, because the wrong lies not in any missing formula but in a concealed term (Gustin & Yazid, 2025).

The factions disagree, yet they share a structure. Each accepts that consent is an inner state and differs only over the sign by which the law may know it, the first demanding speech, the second accepting custom, the third demanding informed comprehension, the fourth demanding uncoerced autonomy. This shared structure is what makes digital cases tractable. The vending machine and the AI agent do not pose a new question about consent. They pose the old question about its sign, under new conditions. The verdict on a vending machine follows almost entirely from which ontology of the sign one adopts, and the machine itself adds nothing the schools had not already debated over a counter of dates and barley.

Vending-Machine Transactions in Fiqh al-Mu'āmalah: Instrument, Not Agent

A vending machine sells goods directly to a consumer without a human intermediary, dispensing items whose types and prices have been set in advance and displayed openly (Sujana et al., 2019). The buyer inserts cash, a card, or a digital payment, selects an item, and the machine releases it, which completes the transaction (Fithrul Laili, 2022). The convenience is real and runs in both directions. The seller extends his reach, conserves labor, time, and expense, and frees himself for other work, while the buyer transacts quickly and securely at any hour (B & Ridlowi, 2023). The Prophetic commendation of the honest, trustworthy trader, reported by al-Tirmidhī, attaches readily to a system in

which prices are fixed and disclosed, and arbitrary haggling or price manipulation is structurally impossible.

The juristic puzzle that the literature repeatedly raises concerns the apparent absence of a contracting party on the seller's side. A machine is not a human being. It possesses neither intellect nor maturity nor legal accountability, and so it cannot satisfy the conditions the law places on a contractor, the *ʻāqid* (Aziz, 2024). From this some conclude that the relationship between the parties, the *irtibāṭ* that grounds rights and obligations, is incomplete, and that the transaction is therefore defective (Pirdayanti & Abdal, 2023). The reasoning is sound on its premise but mistaken in its premise. It assumes that the machine occupies the seller's position in the contract. It does not.

The correct classification treats the machine as an instrument of the contract, an *ālat al-'aqd*, through which a human owner extends a standing offer. The owner who stocks the machine and sets its prices has made his *ījāb* in advance, a general and continuing offer to sell named goods at named prices to whoever accepts. The displayed price and the stocked shelf are that offer made visible. The buyer who inserts payment and selects an item performs *qabūl* by conduct, and the automatic dispensing effects immediate possession, *taqābuḍ*, on both sides at once. The contract is therefore concluded between two human beings, the owner and the buyer, with the machine serving as the medium that carries the owner's antecedent assent to the moment of acceptance. The machine has no more contracts than a vending invoice or a price tag contract. It records and executes a human will.

This is why the analogy of agency, *wakālah*, which some studies reach for, does not fit a vending machine and should be set aside at this stage. Agency presupposes an agent who possesses legal capacity, *ahliyyah*. The jurists distinguish the capacity to bear and discharge obligations, *ahliyyat al-adā'*, which requires intellect and maturity, from the bare capacity to receive rights, *ahliyyat al-wujūb*. A machine has neither in any meaningful sense, and so it cannot be a *wakīl* (Aziz, 2024). Forcing the machine into the role of agent generates the very pseudo-problem that troubles literature, an agent with no capacity, a representative who cannot represent. Removing the machine from the role of party dissolves the problem. An instrument needs no capacity,

because it bears no obligation; it transmits the capacity of the human who deploys it.

Classified correctly, the transaction is a sale by mutual delivery without a spoken formula, *bay' al-mu'āṭāh*, in which the parties agree on goods and price and execute the exchange without uttering offer and acceptance (Fithrul Laili, 2022). The status of this sale is exactly the point at which the factional dispute mapped above becomes decisive, and the vending machine inherits the verdict of whichever ontology one holds. Under the substantivist-customary view of the majority, the displayed price and the act of payment are signs that custom unambiguously reads as consent, and the sale is valid without remainder. Under the strict formalist view that requires a spoken formula, the sale is defective for want of an explicit *ṣīgah*, and Imam al-Shāfi'ī's relied-upon position would treat it as *bāṭil* except where custom makes consent obvious. Even within the Shāfi'ī school, however, the matter is not closed, since al-Ghazālī and al-Nawawī inclined to validate *mu'āṭāh* in whatever custom recognizes as a sale, which rescues the vending machine from invalidity on the school's own terms.

Where a residual scruple remains, the law supplies a fallback that secures the outcome without forcing the formal category. The transaction may be upheld under the principle of liability for goods consumed, *ḍamān al-mutlafāt*, or under the presumption of the owner's consent to compensation, *ẓann al-riḍā bi-l-badal*, whereby a person may use another's property on the reasonable certainty that the owner would approve and is owed its value in return (Rifkiyal, n.d.). The general maxim that things are presumed permissible until evidence establishes otherwise, *al-aṣl fī al-ashyā' al-ibāḥah*, reinforces the same conclusion, since nothing in the vending-machine sale offends a prohibition.

الأَصْلُ فِي الأَشْيَاءِ الإِبَاحَةُ حَتَّى يَدُلَّ الدَّلِيلُ عَلَى التَّحْرِيمِ

The payment layer deserves its own note, because the digital instruments now common in these machines do not alter the analysis and in some respects strengthen it. Whether the buyer pays in coins, banknotes, a debit card, or a scan of QRIS code, the act of payment remains a customary sign of acceptance, and the digital trail it leaves furnishes a clearer record of assent than a wordless exchange of cash ever did. The schools' treatment of *bay' al-mu'āṭāh* can be stated more exactly than the secondary literature

usually allows. The Ḥanafīs validate it for whatever custom treats as a sale, the Mālikīs validate it broadly, and the relied-upon Ḥanbalī position validates it on the strength of custom, as Ibn Qudāmah records in al-Mughnī. Only the dominant Shāfi'ī position withholds validity for want of a formula, and even there the leading authorities of the school qualify the rule. A residual consequence of the category is the buyer's right to return a defective item or to claim compensation for damage, the *khiyār* that protects the very consent the silent form might be thought to imperil. A vending machine that dispenses a faulty product owes the buyer redress on exactly this ground, which is why a stock-and-refund mechanism is a juristic safeguard and a technical convenience at once (Arasy, 2025).

The result is unambiguous and, on reflection, unsurprising. A vending-machine sale satisfies *tarāḍīn* completely. The price is fixed and disclosed, the goods are visible, no party is coerced, no information is hidden, and the buyer chooses freely with full knowledge of the terms. The absence of a spoken formula is a matter of form that the dominant juristic tradition and the practice of the Muslim community have long regarded as immaterial wherever custom reads consent into conduct. The deployment of such machines serves a genuine public benefit, *maṣlaḥah ʿāmmah*, available across social classes, and falls comfortably within the permissible. The vending machine, in short, is the limit-case that the consent principle handles without strain. The interesting failures lie beyond it.

From Instrument to Agent: Where Tarāḍīn Is Actually Threatened

The vending machine is morally inert. It displays a fixed price, conceals nothing, and exerts no pressure, so the consent it elicits is as clean as consent across a counter. Artificial intelligence proper is not inert, and the difference is the whole problem. When a system sets prices that vary by the individual it has profiled, ranks and recommends options to steer a choice, and draws on a behavioral dossier the consumer never knowingly surrendered, the tap on the "agree" button ceases to be a reliable sign of *riḍā*. It becomes a sign engineered by one party to the contract. The ḥadīth demands more than the absence of coercion. It demands the presence of authentic, informed assent, and that is exactly what an opaque, manipulative system can hollow out while leaving every formal indicator intact.

The classical vocabulary of defective consent maps onto these failures with disconcerting precision. A pricing logic the consumer cannot see, and terms buried in unread conditions, reproduce the structure of *gharar* and *jahālah*, the uncertainty and ignorance over the object and terms of exchange that the law has always treated as corrosive of valid sale. Interface designs that conceal the real bargain, the so-called dark patterns, reproduce *tadlīs* and *ghishsh*, deception and adulteration. Systems built to exploit cognitive weakness, to manufacture urgency, or to cultivate compulsive consumption reproduce a moral coercion, *ikrāh ma'nawī*, and an exploitation of need, *istighlāl*, that vitiate the freedom assent requires. An algorithm that inflates apparent demand to push a price upward reproduces *najsh*, the forbidden practice of bidding up goods one does not intend to buy. The ḥadīth that warned a famine-stricken market against compelled prices speaks directly to a market in which prices are quietly tailored to extract the most each buyer can be induced to pay.

This is where the third and fourth factions earn their place. The maqāṣid-oriented reading translates *tarāḍīn* into informed consent and thereby names the operative mechanism, which is disclosure. Before assenting through an AI-mediated service, a user must be given a comprehensible account of how the system works, what data it consumes, and how it reaches its decisions, and where that account is hidden or unintelligible the resulting consent is compromised and the sale falls under the ḥadīth's exclusion (Nashwan, 2025). The clicking of "agree" on conditions no one reads is the characteristic *gharar* of the present order, a ritual of assent emptied of comprehension. A frank assessment must concede that much of what passes for consent in contemporary platform commerce would fail the standard the ḥadīth sets, and that the failure is systemic rather than incidental.

The critique extends to the institutions meant to govern this domain. Islamic legal regulation of algorithmic commerce is reactive and under-institutionalized. Fatwā bodies and Sharī'ah boards rarely command the technical capacity to audit a pricing model or interrogate a recommender system, and the literature on AI in Islamic finance has begun to register this gap between the speed of deployment and the slowness of oversight (Arsyad et al., 2025; Hidayanti et al., 2025). The familiar maxim that rulings change with the change of times, places, and circumstances licenses the law to adapt,

yet a maxim cannot by itself manufacture the institutional machinery, the audit rights, the explainability requirements, and the data entitlements, that substantive consent now demands (Syamsuddini, 2022).

تَغَيُّرُ الأَحْكَامِ بِتَغَيُّرِ الأَزْمِنَةِ وَالأَمْكِنَةِ وَالأَحْوَالِ

Indonesian positive law supplies a partial scaffold that the Sharī'ah analysis can lean on without mistaking it for sufficiency. Consumer protection is regulated by Law No. 8 of 1999, and electronic transactions by the Electronic Information and Transactions Law No. 11 of 2008 as amended by Law No. 19 of 2016, enforced under principles of justice, equality, and legal certainty that converge with the contractual transparency the ḥadīth requires (Putri et al., 2025; UU No. 8 Tahun 1999; UU No. 11 Tahun 2008; UU No. 19 Tahun 2016). These instruments address data privacy and consumer security, yet they were not written for systems that personalize persuasion at scale, and they leave the deeper question of manufactured volition largely untouched. The gap between a statute that forbids outright fraud and a standard that requires authentic assent is the space in which the ḥadīth still does work that secular regulation does not.

It is at this stage, and not with the vending machine, that the agency analogy becomes genuinely useful. A human principal who possesses legal capacity may appoint an AI system as his *wakīl* to transact on his behalf, and the validity of that appointment then governs the dealing. The classical conditions of agency apply in full. The mandate must be defined, the agent must not act beyond the authorization granted, and an action that exceeds the mandate, a *taṣarruf* beyond the *idhn*, is defective for want of the principal's consent to it. An AI that transacts within the limits its user knowingly set acts on a real *tarāḍīn*. An AI that exceeds those limits, or that was given its mandate under conditions of concealment, transacts on a counterfeit one. The law of agency thus furnishes a ready instrument for governing autonomous systems, provided the principal's capacity and informed authorization are genuine rather than presumed from a buried clause.

The data dimension extends the principle into territory the classical jurists never charted, and it is here that the tradition's conceptual resources prove unexpectedly apt. Every AI-mediated transaction harvests information about the consumer, and that information has become an object of value, traded and exploited well beyond the sale that generated it. Nashwan's

proposal to treat such data as a kind of endowment owed back to the community, a digital *waqf*, reframes the silent extraction of consumer data as a breach of trust even where a formal box was ticked (Nashwan, 2025). The objective of preserving wealth, *ḥifẓ al-māl*, arguably now reaches the preservation of the data that is itself a form of wealth, and the duty of trust, *amānah*, that the law imposes on anyone who holds another's property extends to anyone who holds another's information. A transaction that secures the buyer's assent to the purchase while quietly converting his behavior into an unbargained-for asset satisfies the surface of *tarāḍīn* and betrays its substance. The maqāṣid framework, read with this in view, supplies a principled basis for the data-protection requirements that secular regulation has reached for less surefootedly, and it grounds them in a duty older than the technology that makes them necessary (Alamsyah et al., 2026; Elmahjub, 2023).

Translating this condition into practice yields a concrete program rather than a pious wish. Substantive consent under algorithmic conditions requires that pricing logic be disclosed in terms a consumer can grasp, that recommender systems declare the interests they serve, that the data a transaction harvests be named and its uses bounded, and that an independent capacity exist to audit these systems for manipulation. A Sharī'ah board that certifies an AI-driven service without the means to inspect its model certifies a surface. The jurisprudential tradition already contains the warrant for each demand, since disclosure answers to the prohibition of *gharar*, honest ranking answers to the prohibition of *ghishsh*, bounded data use answers to the duty of *amānah*, and audit answers to the principle that rights require an enforcing authority. What the tradition lacks is the institutional apparatus to operationalize these warrants at the speed and scale that algorithmic commerce now operates, and building that apparatus is the practical task that the ḥadīth, rightly understood, sets for the present generation of jurists and regulators (Arsyad et al., 2025; Hidayanti et al., 2025; Putri et al., 2025).

The principle that emerges is therefore conditional and demanding rather than permissive. So long as a user retains the right to choose, enjoys access to transparent information, and keeps control over personal data and transactional decisions, the ethic the ḥadīth carries is preserved, and AI-mediated commerce is lawful. Where a system strips the user of freedom or conceals what assent requires, the transaction contravenes the ḥadīth al-aḥkām

however polished its interface. The integration of AI into the market is not blessed by its convenience; it is permitted only on the condition that it sustains the substance of consent. That condition is exacting, and the present order does not yet reliably meet it.

A Typology of Algorithmic Agency: From Instrument to Autonomous Contractor

The instrument-versus-agent distinction does real analytical work, yet it draws a line where a spectrum runs. Between the inert vending machine and a fully autonomous contracting system lie gradations, each carrying a different consent profile. At the first level sits the pure instrument, the machine that executes a fixed and disclosed offer, where riḍā is intact because nothing intervenes between the owner's standing offer and the buyer's act of acceptance (Aziz, 2024). At the second level sits the recommender or nudge system, which still executes a human offer while shaping the buyer's choice through ranking, framing, and default-setting (Freitas & Lotufo, 2024). Consent survives here only to the degree that the steering is disclosed and resistible. At the third level sits the delegated agent, the AI a user knowingly appoints to transact within a defined mandate, which the fiqh of wakālah governs directly (Guna & Fanani, 2025). At the fourth level sits the autonomous system that originates terms, adjusts them in real time, and learns from outcomes, where the human will recede furthest from the moment of contract (Arsyad et al., 2025). The operative question is never whether AI consents, which it cannot, but whose consent the system carries and how faithfully it carries it. Naming the level is the first analytical act, because a ruling fit for a vending machine misfire when transferred to an autonomous pricing engine, and a caution fit for the latter would needlessly burden the former.

Riḍā, ʻAdālah, and the Maqāṣid Hierarchy: Consent as Necessary but Insufficient

Treating consent as the hinge of validity is warranted by the ḥadīth, and consent remains a means before it becomes an end. The objectives of the law place riḍā in service of justice, ʻadālah, and the preservation of wealth, ḥifẓ al-māl (Alamsyah et al., 2026). A transaction can satisfy consent and still fail justice, as when a party agrees to terms that exploit his ignorance or his need,

a possibility the classical doctrine of ghabn and istighlāl anticipated long before algorithms existed. Personalized pricing is the contemporary instance. A buyer who freely accepts a price tailored to extract his maximum willingness to pay has consented in form while bearing an injustice in substance (Nashwan, 2025). Reading the maqāṣid as a hierarchy rather than a flat inventory clarifies the stakes, since consent guards justice, justice guards wealth, and a system that secures the lower-order indicator while subverting the higher-order objective has inverted the order of value the law exists to protect (Gustin & Yazid, 2025; Syamsuddini, 2022). The corrective is to read consent thickly, as informed and uncoerced assent measured against the justice it serves, rather than thinly, as a signature captured on a screen. The ḥadīth supplies the test, and the maqāṣid supply its depth.

The Regulatory–Fiqh Interface in Indonesia: DSN-MUI, UU PDP, and the Governance Gap

The abstract demand for governance acquires concrete shape in the Indonesian setting, where a fatwa apparatus and a statutory regime now overlap. The Dewan Syariah Nasional has already named the relevant wrongs. Its fatwa on technology-based financing requires that such services remain free of ribā, gharar, maysir, tadlīs, ḍarar, and ẓulm, which places non-transparency and the infliction of one-sided harm at the center of the Sharī'ah assessment of digital transactions (DSN-MUI, 2018). The same fatwa authorizes wakālah bi al-ujrah among its permitted contracts, which furnishes the doctrinal vehicle for the delegated-agent case identified above, while a companion fatwa governs electronic money on parallel principles (DSN-MUI, 2017). The statutory layer has matured in step. The Personal Data Protection Law grants the data subject the rights to be informed, to withdraw consent, to erase data, and to seek redress, which operationalize substantive consent in the one domain where algorithmic commerce is most extractive (UU No. 27 Tahun 2022). These instruments converge with the consumer-protection and electronic-transaction statutes already in force (UU No. 8 Tahun 1999; UU No. 11 Tahun 2008; UU No. 19 Tahun 2016; Putri et al., 2025). The gap that remains is one of capacity rather than doctrine. A Sharī'ah board can prohibit tadlīs in a fatwa and still lack the technical means to detect it inside a recommender model, and a statute can grant a right to withdraw consent that no consumer can meaningfully

exercise against an opaque system (Arsyad et al., 2025; Hidayanti et al., 2025). The principles are settled; the audit infrastructure is not.

Conclusion

This study began from the ḥadīth al-aḥkām *"Innamā al-bay' 'an tarāḍin"*, reported by Ibn Mājah in the Book of Trade. A careful *takhrīj* corrects the common claim that the report is merely weak. Its chain runs through Dāwūd b. Ṣāliḥ al-Madanī, it is corroborated by parallels in al-Bukhārī's Tārīkh, Ibn Ḥibbān, and al-Bayhaqī and by a supporting narration from Abū Hurayra, it was admitted into Ibn Ḥibbān's Ṣaḥīḥ and graded sound by al-Albānī, and its meaning is fixed by Q. al-Nisāʾ 4:29 and settled by consensus. The principle that a sale is valid only by the free consent of both parties rests on solid ground, and in the classical understanding that consent is an assent of the heart realized through offer and acceptance without coercion or deception.

The phenomenon of AI-based exchange presents a new form of *muʾāmalah* marked by automation, prediction, data integration, and scale, in which a system may function as an active participant rather than a passive tool. The analysis resolves the resulting puzzle by distinguishing instrument from agent. A vending machine is an instrument of the owner's standing offer, which places its transactions within *bay' al-muʾāṭāh* and preserves *tarāḍīn* in full, since price and goods are disclosed, no coercion operates, and the buyer chooses freely. A machine cannot be an agent, *wakīl*, for it lacks legal capacity, yet a human who possesses capacity may appoint an AI as his agent within a defined and informed mandate, and an action beyond that mandate voids the consent on which it depends. Where formal scruples persist, the categories of *ḍamān al-mutlafāt* and *ẓann al-riḍā bi-l-badal* secure the outcome, and Indonesian consumer and electronic-transaction law furnishes a partial scaffold of transparency.

The ḥadīth therefore remains relevant as a normative standard for the dynamics of digital commerce, and consent, *riḍā*, is the bridge between classical values and contemporary challenge. Its deeper service lies in the critique of it licenses. The vending machine passes its test easily, while much of algorithmic commerce, with its personalized pricing, engineered choice, and silent data extraction, does not, because it manufactures the appearance of consent while corroding its substance. The contemporary fiqh of *tarāḍīn* is consequently a

fiqh of transparency, explainability, and data rights, and the task ahead for jurists, academics, and regulators is to build the institutional machinery that can hold autonomous systems to a standard the tradition articulated fourteen centuries ago in a market of dates and barley.

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