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Surge Pricing, Asymmetrical Power, and Consumer Protection: Assessing Fairness in Digital Transportation Contracts

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ABSTRACT
Surge pricing in digital transportation services raises questions of contractual fairness because platforms control price-formation mechanisms, transaction data, and standard contractual terms, whereas consumers primarily encounter prices generated by automated systems. This study examines how asymmetrical power manifests in the implementation of surge pricing and evaluates the adequacy of Indonesia's consumer protection framework in safeguarding contractual fairness. Using a normative-empirical (socio-legal) design, the study combines statutory and conceptual analysis with a survey of 113 online transportation service users selected through purposive sampling. Survey data were analyzed using descriptive statistics, the Shapiro–Wilk test, Spearman's rank correlation, and, as a supplementary analysis, ordinal logistic regression. Legal materials were analyzed qualitatively and prescriptively and then integrated with the empirical findings. The results show that perceived transparency of fare information was relatively low (M = 2.09), whereas understanding of dynamic pricing was higher (M = 3.17). Experience of fare changes was significantly associated with their reported effect on service-use decisions (ρ = 0.582; $p < 0.001$) and with perceptions of disadvantage (ρ = 0.347; $p < 0.001$). These findings indicate that asymmetrical power extends beyond informational inequality to encompass platform control over price-formation mechanisms and the practical effectiveness of consumer choice. Although Indonesia's legal framework contains substantive consumer-protection safeguards, it lacks sufficiently specific parameters for assessing real-time dynamic pricing. The study therefore proposes three analytical parameters—information adequacy, meaningful consent, and protection against situational vulnerability—as a basis for evaluating contractual fairness in surge-pricing practices.

Keywords: surge pricing; asymmetrical power; contractual fairness; meaningful consent; digital transportation

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1. Introduction

The digital transformation of urban mobility has reconfigured the relationship between service providers and consumers. Ride-hailing platforms integrate booking, driver–consumer matching, fare determination, payment, and terms of service within a single digital environment (Yan et al., 2020). Unlike conventional fares, which are relatively stable, platform fares may vary dynamically according to demand, driver availability, time, location, and other market conditions. Surge pricing is one such mechanism, under which fares increase when demand rises and/or driver availability declines (Besbes et al., 2021). From an economic perspective, this mechanism may help balance demand and supply and sustain service availability (Sun et al., 2020). Surge pricing is therefore not, in itself, necessarily unlawful (Chen et al., 2020). The legal concern arises when dynamic pricing operates within a contractual relationship in which the platform and the consumer possess markedly unequal capacities to shape the transaction.

Platforms do more than facilitate transactions: they control the digital infrastructure, transaction data, pricing parameters, standard-form terms, and the mechanisms through which transactions are executed (Guihot & McNaught, 2021a). Consumers generally do not possess an equivalent capacity to access, influence, or negotiate these elements. Instead, they are presented with system-generated prices and must decide whether to proceed with or cancel the transaction (Afilipoaie et al.,

2022). The legal significance of surge pricing therefore lies not only in the fare charged, but also in the distribution of information, control over the pricing process, bargaining position, and the conditions under which consumers exercise choice.

This problem becomes clearer when price disclosure is distinguished from transparency of the price-formation process. Consumers may know the fare displayed before confirming an order, yet remain unaware of the principal factors driving the increase or the conditions that trigger price variation (Keller et al., 2022). In an algorithmic environment, this distinction is important because the platform controls the parameters governing price formation (Alderighi et al., 2022). Contractual fairness therefore cannot be assessed solely by asking whether the final fare was displayed; it must also consider whether consumers received sufficient information to understand the material conditions of the transaction before consenting (Priester et al., 2020).

Existing scholarship addresses several dimensions of this problem, but largely in separate streams. Research on dynamic pricing examines price adjustment as a mechanism for balancing demand and supply, whereas studies of price fairness show that perceptions of reasonableness depend not only on the amount charged but also on the reasons and procedures underlying price differences (Allender et al., 2021). Research on algorithmic pricing further shows that automated price-setting may improve efficiency while raising concerns about transparency, data use, and information distribution (Gerlick & Liozu, 2020). Studies of platform power, meanwhile, demonstrate that inequality in digital transactions cannot be reduced to information asymmetry because platforms can also design the transaction, regulate access to information, impose standard-form terms, and control the technological infrastructure (Guihot & McNaught, 2021a). Taken together, these literatures identify the economic, behavioral, technological, and structural dimensions of dynamic pricing, but they do not fully integrate them within a single framework of contractual fairness.

This fragmentation is particularly consequential for consumer consent. In digital contracts, consent is often expressed through simple actions, such as clicking a booking button or accepting predetermined terms of service (Cumyn, 2025). Formal assent, however, does not necessarily establish that consumers had the informational and practical conditions required to understand the transaction (Bakos et al., 2014). The problem becomes more acute when consumers face urgent transportation needs or limited service alternatives. In such circumstances, a consumer may retain the formal ability to reject a fare while having a substantially constrained practical choice. An adequate analysis of digital contracting therefore requires simultaneous attention to information distribution, the quality of consent, bargaining position, and situational vulnerability (Admiral et al., 2025).

Indonesian law provides a broad normative foundation for addressing these concerns through consumer-protection law, electronic-transaction regulation, electronic-commerce regulation, and general contract law. Law Number 8 of 1999 on Consumer Protection recognizes consumers' rights to accurate, clear, and truthful information and to fair, honest, and non-discriminatory treatment, while requiring business actors to provide accurate information and act in good faith. Government Regulation Number 80 of 2019 on Trading Through Electronic Systems likewise emphasizes transparency, accountability, balance, fairness, and good faith in digital transactions. General contract law requires valid agreement and performance in good faith. These norms provide a legal basis for consumer protection in digital transactions, but they do not expressly establish operational criteria for assessing real-time price changes within structurally unequal contractual relationships.

The central problem is therefore not an absence of consumer-protection norms, but a regulatory specificity gap: general legal standards must be applied to dynamic and algorithmic pricing without sufficiently specific criteria for doing so (Holly et al., 2025). Positive law does not clearly determine how much information consumers should receive about the principal conditions of price formation, how the quality of consent should be evaluated when prices change dynamically, or how limited service alternatives should factor into an assessment of the consumer's contractual position (Ferdinand Polopadang & Wilma Silalahi, 2026). This gap calls for an analytical approach that evaluates not only price disclosure, but also the conditions under which consumers understand and accept the transaction.

This study uses the concept of asymmetrical power to explain that broader structure. The concept is analytically distinct from information asymmetry. Whereas information asymmetry concerns unequal access to or control over relevant information, asymmetrical power encompasses the platform's broader capacity to shape the technological, informational, and contractual environment in which consumer decisions are made (Guihot & McNaught, 2021b). In the context of surge pricing, this power is reflected not only in control over information about algorithms or pricing parameters, but also in control over transaction design, terms of service, and the practical conditions of consumer choice.

Against this background, the study integrates three dimensions that are commonly examined separately: dynamic pricing, asymmetrical platform power, and contractual fairness. Its contribution lies in using the relationship among these dimensions to develop legal parameters for evaluating surge-pricing practices. The analysis does not presume that surge pricing is inherently unlawful. Rather, it asks whether the conditions surrounding its implementation provide consumers with adequate information, enable meaningful consent, and offer sufficient protection when practical alternatives are limited.

The study addresses two research questions. First, how is asymmetrical power manifested through information distribution, control over price-formation mechanisms, and consumer choice in digital transportation contracts involving surge pricing? Second, to what extent does Indonesia's consumer-protection framework provide an adequate basis for evaluating contractual fairness in such structurally imbalanced relationships, and which legal parameters can guide that assessment? Accordingly, this study analyzes the manifestation of asymmetrical power from a normative-empirical perspective, evaluates the adequacy of the Indonesian legal framework, and formulates three analytical parameters: information adequacy, meaningful consent, and protection against situational vulnerability. The analysis thus moves beyond the narrow question of whether a fare was disclosed toward the broader question of whether consumers had adequate conditions to understand, choose, and consent meaningfully within a platform-controlled contractual environment.

Literature Review And Theoretical Framework

2.1. Dynamic Pricing, Algorithmic Pricing, and Contractual Fairness

Dynamic pricing is a mechanism through which the price of a service varies in response to changing market or transactional conditions. In digital transportation, those conditions may include demand, service availability, time, location, and other operational factors. Surge pricing is a specific form of dynamic pricing in which fares increase as demand rises and/or service availability declines. Economically, dynamic pricing may allocate limited service capacity, balance demand and supply, and support

service availability. Its use, therefore, cannot by itself be treated as evidence of unfairness or unlawful conduct.

Algorithmic pricing has nevertheless altered the process through which prices are formed. Rather than relying exclusively on relatively stable pricing schedules, platforms may generate prices automatically by processing multiple variables in real time. Gerlick and Liozu (2020) show that algorithmic pricing may produce efficiency gains while simultaneously raising concerns about transparency, data use, consumer perceptions, and the regulatory consequences of automated price-setting. The relevant question is therefore not merely whether a price is variable, but whether the technological process producing that variation creates conditions that consumers cannot reasonably understand or evaluate.

Research on price fairness likewise indicates that consumers evaluate prices not only by their nominal amount, but also by the reasons and procedures underlying price differences. (Kopalle et al., 2023) demonstrate that information asymmetry and strategic obfuscation can shape perceptions of price fairness by influencing consumers' understanding of pricing practices. This insight is particularly relevant to surge pricing because the perceived fairness of a fare increase may depend on whether consumers understand the circumstances that produced it.

This literature supports a conceptual distinction between price disclosure and pricing-process transparency. Price disclosure concerns the amount a consumer must pay at the point of transaction. Pricing-process transparency concerns the information necessary to understand the principal circumstances under which that amount is determined or may change. A consumer may therefore know the fare displayed in the application without knowing why it increased or which conditions materially contributed to its formation.

From the perspective of contractual fairness, this distinction is consequential. The issue is not whether a platform may have legitimate economic reasons to vary prices, but whether consumers are placed in a position to evaluate the transaction before accepting it. Contractual fairness therefore requires attention to both pricing outcomes and the informational and practical conditions under which consumers encounter and respond to those prices. This provides the basis for examining the structural relationship between platforms and consumers.

2.2. Information Asymmetry, Platform Power, and Consumer Choice

Information asymmetry provides an initial explanation for the consumer's unequal position in digital transactions. It arises when one party possesses transaction-relevant information that is not equally available to the other. Digital transportation platforms may have access to data on demand, service availability, transaction patterns, and pricing conditions that consumers cannot access to the same extent. These differences affect the informational basis on which consumers make contractual decisions.

Information asymmetry alone, however, does not fully capture the relationship between digital platforms and consumers. Platform power extends beyond possession of information to the capacity to structure the environment in which transactions occur. Guihot and McNaught (2021a) highlight the role of technological architecture, data, and platform design in the exercise of platform power. This perspective is particularly relevant to digital transportation, where the platform operates the technological infrastructure, designs the user interface, establishes standard contractual conditions, and controls the mechanisms through which prices are generated and communicated.

This study therefore distinguishes information asymmetry from asymmetrical platform power. Information asymmetry concerns unequal access to relevant information, whereas asymmetrical power concerns the broader inequality in the parties' capacity to shape the technological, informational, and contractual environment of the transaction. The latter is analytically broader because it captures not only what each party knows, but also the extent to which each party can influence the conditions under which contractual decisions are made.

In surge-pricing transactions, this asymmetry is reflected in the parties' unequal ability to influence price formation. The platform establishes or modifies the technological and operational parameters through which fares are generated, whereas consumers encounter the resulting fare through a predetermined interface. Consumers ordinarily cannot negotiate the pricing mechanism, alter its parameters, or modify the standard contractual terms. Their decision is therefore exercised within an environment substantially structured by the platform.

This structure is legally relevant because it affects the quality of consumer choice. Formal choice exists when consumers can technically accept or reject the displayed fare. Effective choice, by contrast, depends on whether consumers have sufficient information and realistic alternatives to exercise that decision meaningfully. A transaction may therefore display the formal appearance of voluntary choice while leaving the consumer with limited practical capacity to alter the outcome.

The relationship between dynamic pricing and contractual fairness cannot therefore be explained solely by the presence or absence of information. It also requires attention to the distribution of power within the transaction architecture and the consequences of that distribution for consumer choice. This distinction provides the conceptual basis for examining both the quality of consent and the circumstances in which that choice is exercised.

2.3. Meaningful Consent, Situational Vulnerability, and the Theoretical Framework

Consent is fundamental to contractual formation, but digital transactions have transformed the way consent is expressed. Consumers commonly transact through standardized interfaces and simple digital actions, such as selecting a service and confirming a booking. These actions establish formal assent, but they do not necessarily demonstrate that the consumer understood the material circumstances of the transaction or had a meaningful opportunity to evaluate its consequences (Agatz et al., 2024).

Meaningful consent provides an analytical basis for addressing this distinction. It is not proposed here as an additional legal requirement for contractual validity. Rather, it concerns the substantive quality of the decision: whether consumers received materially relevant information, could understand its principal implications, and had a genuine opportunity to decide before the transaction was concluded. In dynamic-pricing transactions, formal acceptance of a displayed fare therefore does not necessarily establish that the consumer understood the conditions driving the price or the significance of accepting it at that moment.

The quality of consumer choice must also be assessed in light of the circumstances surrounding the transaction. Situational vulnerability is relevant because the practical capacity to reject a price may vary according to urgency, limited service availability, time constraints, location, or the absence of realistic alternatives. The same fare variation may consequently have different implications depending on the circumstances in which the consumer must decide.

Situational vulnerability does not assume that consumers are inherently incapable of autonomous decision-making. Instead, it recognizes that autonomy may be constrained by specific transactional circumstances. This perspective shifts the analysis from whether a choice technically existed to whether that choice could be exercised effectively in the conditions of the particular transaction.

The literature reviewed above supports an integrated framework for evaluating contractual fairness in surge pricing. Dynamic pricing identifies the mechanism through which fares vary, while algorithmic pricing explains the technological process through which such variation may be generated. Information asymmetry captures unequal access to relevant information, whereas asymmetrical platform power captures the platform's broader capacity to structure the technological and contractual environment. Meaningful consent addresses the quality of the consumer's agreement within that environment, and situational vulnerability explains how particular circumstances may constrain the practical exercise of choice.

On this basis, the study applies three analytical parameters to assess contractual fairness in surge pricing: information adequacy, meaningful consent, and protection against situational vulnerability. Information adequacy concerns whether consumers receive materially sufficient information to understand the dynamic nature of fares and the principal circumstances affecting price variation. Meaningful consent concerns whether that information enables an informed contractual decision. Protection against situational vulnerability concerns whether the circumstances surrounding the transaction materially restrict the consumer's practical alternatives.

3. Method

This study adopts a normative-empirical legal research design (socio-legal research) with a descriptive-analytical orientation (Ali, 2021). The normative component examines legal rules governing consumer protection, electronic transactions, and contract law as they apply to surge pricing, while the empirical component examines users' experiences, knowledge, and perceptions of online transportation services. The study combines statutory, conceptual, and empirical approaches, with the empirical component conducted through a survey (Tan, 2021). The statutory analysis covers Law Number 8 of 1999 on Consumer Protection; Law Number 11 of 2008 on Electronic Information and Transactions, as amended by Law Number 1 of 2024; Government Regulation Number 80 of 2019 on Trading Through Electronic Systems; and the Indonesian Civil Code. The conceptual analysis focuses on asymmetrical power, information asymmetry, standard-form clauses, meaningful consent, good faith, situational vulnerability, and contractual fairness.

The study uses both primary and secondary data. Primary data were collected through a closed-ended questionnaire using a five-point Likert scale and administered to 113 users of online transportation services selected purposively on the basis that they had previously used such services. The instrument measured perceived transparency of fare information, understanding of dynamic pricing, experience of fare changes during peak hours or specific weather conditions, the reported effect of those changes on service-use decisions, perceptions of being disadvantaged, perceptions of government oversight, and willingness to pay more for faster service. Secondary data comprised legislation as primary legal material; books, journal articles, and prior studies on surge pricing, digital contracts, platform power, and consumer protection as secondary legal materials; and relevant tertiary legal materials.

The empirical and normative materials were analyzed using complementary methods (Ali, 2021). Survey data were summarized using frequencies, percentages, means, medians, and standard deviations. Distributional normality was assessed using the Shapiro–Wilk test. Because the relevant variables were ordinal and the data were not normally distributed, associations were examined using Spearman's rank correlation (Spearman's rho). Ordinal logistic regression was used only as a supplementary analysis to examine the relationship between experience of fare changes and reported effects on service-use decisions and consumer perceptions, subject to the proportional-odds assumption. Legal materials were analyzed qualitatively and prescriptively through grammatical, systematic, and teleological interpretation (Sugiyono, 2013) to identify obligations concerning price information, electronic consent, standard-form clauses, and good faith. The empirical findings were then integrated with the normative analysis to assess the adequacy of the existing framework, identify the regulatory specificity gap, and formulate the three parameters used to evaluate contractual fairness: information adequacy, meaningful consent, and protection against situational vulnerability.

4. Results And Discussion

a. Asymmetrical Power in the Implementation of Surge Pricing and the Consumer's Position in Digital Contracts

The contractual relationship between digital transportation platforms and consumers is functionally imbalanced (Sukmara et al., 2025). Platforms control the digital infrastructure through which transactions occur, possess data on demand and service availability, set operational parameters, and regulate the mechanisms that generate fares (Suartika & Td, n.d.). Consumers, by contrast, interact primarily with information presented through the application interface and receive the fare as the outcome of a mechanism they do not control (Rino Esa Maha Putra et al., 2026). This imbalance does not, by itself, establish a legal violation; rather, it reflects an unequal distribution of capacities to shape the conditions of the contract (Brenncke, 2024).

The significance of this structural imbalance becomes more apparent when surge pricing is applied. Fares may vary in response to demand and service availability at a particular time (Schröder et al., 2020). In that setting, the consumer's position depends not only on the amount displayed, but also on the quality of information concerning the price change, the ability to understand the mechanism underlying it, and the range of alternatives available when the decision must be made (Fahmi et al., 2026). The survey of 113 respondents indicates that these dimensions were perceived differently.

Table 1. Descriptive Statistics of Key Study Variables

Variable	M	SD	Median	Min–Max
Transparency of fare information	2.09	0.93	2	1–5
Understanding of dynamic pricing	3.17	1.22	3	1–5
Experience of fare changes	2.65	1.45	2	1–5
Impact of fare changes on usage decision	2.72	1.23	3	1–5
Perceived disadvantage from high fares	2.97	1.06	3	1–5
Willingness to pay more for faster service	2.16	1.03	2	1–5

Perceived transparency of fare information recorded the second-lowest mean score, after willingness to pay more for faster service (M = 2.09, SD = 0.93, Median = 2). Seventy-four respondents (65.5%) assigned scores of 1–2 to the statement that fare information was communicated transparently and was easy to understand. By contrast, respondents reported a higher and more dispersed level of understanding of

dynamic pricing (M = 3.17, SD = 1.22, Median = 3): 36 respondents (31.9%) scored 1–2, 32 (28.3%) scored 3, and 45 (39.8%) scored 4–5.

This difference suggests that the consumer-protection problem cannot be reduced to a general lack of awareness of dynamic pricing. Some respondents reported relatively strong understanding of the mechanism while still perceiving fare information as insufficiently transparent. The association between transparency and understanding was positive and statistically significant but modest ($\rho = 0.250$; $p = 0.008$). Awareness that dynamic pricing exists is therefore analytically distinct from transparency about how a particular fare is formed.

This distinction is important in digital contracting. Disclosure of the fare amount tells consumers how much they must pay, but it does not necessarily explain why that amount changed. Under surge pricing, consumers may see the final fare without having equivalent access to information about the parameters that produced it. Where the platform controls demand data, driver availability, transaction infrastructure, and price-formation mechanisms while the consumer primarily receives the resulting price, the imbalance extends beyond unequal access to information and into control over the transaction architecture.

Experience of fare changes adds a second dimension to this analysis. The mean score for experience of fare changes was 2.65 (SD = 1.45; Median = 2), while the mean score for the reported effect of fare changes on service-use decisions was 2.72 (SD = 1.23; Median = 3). Their association was the strongest correlation relevant to the first research question ($\rho = 0.582$; $p < 0.001$).

Table 2. Spearman Correlations Among Key Study Variables

Variables	ρ	p
Transparency of fare information – Understanding of dynamic pricing	.250	.008
Experience of fare changes – Impact on usage decision	.582	< .001
Experience of fare changes – Perceived disadvantage	.347	< .001
Impact of fare changes – Perceived disadvantage	.383	< .001

This coefficient indicates a relatively strong positive association: respondents who reported more frequent experience of fare changes also tended to report a greater effect on their decisions to use the service. The finding places price dynamics within the consumer decision-making process rather than treating them as a matter of disclosure alone. In practical terms, fare changes were associated with decisions to proceed with, postpone, or discontinue use of the service.

Consumers formally retain the option to accept the displayed fare or abandon the transaction. Yet the existence of a formal choice does not necessarily mean that the choice is equally effective in every situation. During peak hours, adverse weather, or periods of heightened mobility demand, rejecting a transaction may entail longer waiting times, fewer alternatives, or higher substitute costs. The observed association between fare-change experience and service-use decisions therefore supports the analytical distinction between formal choice and effective choice.

A supplementary ordinal logistic model was directionally consistent with this pattern. When the reported effect of fare changes on usage decisions was treated as the dependent variable, experience of fare changes produced $B = 0.993$ and an odds ratio of approximately 2.70, indicating a higher likelihood of placement in a higher impact category as experience increased. Because the proportional-odds assumption was not validated, however, these estimates are treated as supplementary rather than

primary inferential evidence. The discussion therefore relies principally on the Spearman correlation.

A third dimension concerns perceived disadvantage. The variable measuring perceived disadvantage from high fares had M = 2.97 (SD = 1.06; Median = 3). Thirty respondents (26.5%) selected scores of 4–5, while 51 respondents (45.1%) selected a score of 3. Experience of fare changes was positively associated with perceived disadvantage ($\rho = 0.347$; $p < 0.001$), indicating that greater reported exposure to fare changes tended to coincide with stronger perceptions of being placed at a disadvantage.

The reported effect of fare changes on usage decisions was likewise associated with perceived disadvantage ($\rho = 0.383$; $p < 0.001$). Taken together, these relationships form a coherent pattern: experience of fare changes was associated with service-use decisions and with perceived disadvantage, while the reported effect on usage decisions was also associated with perceived disadvantage. The findings do not establish causality, but they show that surge pricing should be analyzed within the consumer decision-making process rather than solely as a question of price level.

Viewed through the lens of asymmetrical power, this pattern extends beyond information asymmetry. Information asymmetry concerns differences in access to relevant information; digital transportation platforms may possess operational and transactional information unavailable to consumers. Platform power, however, also includes the ability to design transactions, impose standard-form contracts, operate booking systems, and determine how price changes are communicated (Faisal et al., 2026). The relevant imbalance therefore concerns not only who knows more, but also who has greater capacity to structure the conditions under which the contract is formed.

This distinction clarifies why surge pricing is relevant to the analysis of contractual power. Dynamic pricing does not itself create the structural imbalance between platforms and consumers; that imbalance is embedded in the architecture of the platform–consumer relationship (Nuryakin & Anggitasari, 2026). Nevertheless, when fares change in response to transaction conditions, consumers must react to the output of a mechanism over which they have little or no influence. The platform retains control over price formation while the consumer adapts his or her decision to the resulting fare. Structural power can therefore operate through pricing architecture without taking the form of direct coercion (Fatmawati et al., 2025).

This structure also gives rise to situational vulnerability. Such vulnerability need not be an inherent personal characteristic of the consumer; it may arise from transaction-specific conditions that restrict access to realistic alternatives. A consumer who urgently needs transportation during a period of high demand faces a different choice environment from one who can postpone travel or use another service. These circumstances affect the practical value of choices that remain formally available.

For that reason, consent expressed by confirming an order should not be assessed solely by reference to acceptance of the displayed fare. The relevant legal question concerns the conditions under which that acceptance was formed. Meaningful consent requires materially relevant information, a reasonable opportunity to understand its implications, and practical alternatives that allow the consumer to decide. This does not mean that every surge-pricing contract is invalid or that every fare increase is unfair. Rather, the concept provides a framework for evaluating whether consent was formed under sufficiently informative and choice-supporting conditions.

The empirical findings are consistent with this construction. Low perceived fare transparency did not coincide with uniformly low understanding of dynamic pricing. At the same time, the relatively strong association between fare-change experience and service-use decisions indicates that price variation is closely connected to the consumer's decision process, while the association with perceived disadvantage highlights another dimension of the consumer's contractual position. The issue is therefore not simply whether consumers know the fare, but whether the information and alternatives available at the time of decision are sufficient to support an effective choice.

These findings suggest that asymmetrical power in surge pricing operates through three interrelated dimensions: distribution of information, control over price-formation mechanisms, and the practical effectiveness of consumer choice. Fare transparency should therefore not be equated with the mere display of a final price. Its substantive function is to provide information that enables consumers to understand material price changes and evaluate their consequences before the contract is formed. The consumer's position in a surge-pricing transaction is consequently more complex than a simple binary relationship between displayed price and formal acceptance.

Platforms exercise greater control over systems, information, and price-formation mechanisms, whereas consumers confront the outcomes of those mechanisms under circumstances in which practical alternatives may vary. The association between fare-change experience and reported effects on usage decisions ($\rho = 0.582$; $p < 0.001$), together with the association between fare-change experience and perceived disadvantage ($\rho = 0.347$; $p < 0.001$), is consistent with the proposition that price dynamics are relevant to the consumer's position in the contractual process. The lower score for perceived fare transparency, despite a higher level of understanding of dynamic pricing, further indicates that the issue is not merely price literacy but the informational and structural conditions under which the transaction is formed.

Accordingly, asymmetrical power in surge-pricing transactions is reflected in the parties' unequal capacities to access information, understand or influence price-formation mechanisms, and exercise choice effectively under particular transactional conditions. Surge pricing becomes legally relevant not simply because it may produce higher fares, but because those fare changes occur within a contractual structure in which the platform exerts greater control over the transaction architecture. This finding leads to the second research question: whether Indonesian positive law provides sufficiently specific standards to protect information quality, consent, and contractual fairness in real-time dynamic-pricing transactions.

b. Adequacy of the Consumer Protection Framework in Ensuring Contractual Fairness in Surge Pricing

Surge pricing in digital transportation lies at the intersection of consumer-protection law, electronic-transaction regulation, and contract law. The legal issue is not whether dynamic pricing may be used as a pricing method, but whether existing norms provide adequate standards for evaluating its reasonableness in contractual relationships. Indonesian law offers a protective framework through the Consumer Protection Law, electronic-transaction regulations, and the Indonesian Civil Code. These provisions are, however, framed at a relatively general level, so their application to real-time pricing mechanisms requires interpretative construction (MacKay & Weinstein, 2022).

Law Number 8 of 1999 on Consumer Protection establishes a central foundation by recognizing consumers' rights to accurate, clear, and truthful information and to fair, honest, and non-discriminatory treatment. Article 7 requires business actors to act in

good faith and to provide accurate, clear, and truthful information concerning the conditions and guarantees of goods and/or services, including prices or fares. Price information is therefore a substantive component of consumer protection rather than a mere transactional formality.

Surge pricing nonetheless presents questions that this general formulation does not fully resolve (Rojabi, 2026). In a dynamic transaction, the fare is not merely a fixed amount payable by the consumer; it is the output of a mechanism that changes in response to particular conditions. The obligation to provide information should therefore be interpreted as extending beyond disclosure of the final fare to include the dynamic nature of the price and the principal conditions that may cause it to change (Syakir & Nisa, 2025). The distinction between price disclosure and pricing-process transparency is consequently central to determining whether the information obligation has been substantively fulfilled.

Article 10 of the Consumer Protection Law provides an additional basis for scrutinizing price information by prohibiting false or misleading representations concerning prices or fares. The provision does not make every fare increase unlawful. Its relevance lies in the manner in which the price and transaction conditions are presented: the information must be accurate, clear, and free from deception. Legal scrutiny should therefore focus on the presentation and operation of the pricing mechanism rather than on the fare amount in isolation.

Article 9 of the Electronic Information and Transactions Law extends these obligations to the electronic environment by requiring complete and accurate information concerning contractual terms and the products offered. Government Regulation Number 80 of 2019 on Trading Through Electronic Systems reinforces these requirements through rules on price information, contractual terms, and the technical and substantive mechanisms of electronic consent. The legal framework thus regulates not only the existence of electronic consent, but also the informational conditions preceding its formation.

General contract law provides a further normative boundary. Article 1320 of the Indonesian Civil Code identifies agreement as a requirement for contract validity; Article 1321 addresses consent affected by mistake, coercion, or fraud; and Article 1338(3) requires contracts to be performed in good faith. These provisions provide a basis for assessing the formation and exercise of contractual consent, although they do not set specific standards for transactions involving real-time dynamic pricing.

Within this framework, meaningful consent is best understood as an analytical parameter rather than as a new statutory requirement for contractual validity. It evaluates whether materially relevant information was available, whether the consumer could understand the principal consequences of the transaction, and whether there was a genuine opportunity to decide before consent was given. This approach assesses the substantive quality of consent without altering the legal construction of agreement under Article 1320 of the Indonesian Civil Code.

Standard-form clauses also define the limits of platform contractual authority. Article 18 of the Consumer Protection Law prohibits certain standard clauses, including provisions that are difficult to see, are not clearly readable, or are difficult to understand. This rule is particularly relevant to digital contracts because the mere availability of terms and conditions within an application does not necessarily make them substantively comprehensible. Article 18(1)(g) is also relevant where a clause grants unilateral authority to a business actor. Its application to surge pricing, however,

requires attention to the substance and scope of that authority and to the information made available to consumers.

Taken together, these rules show that Indonesia does not face a legal vacuum in relation to surge pricing. Rights to information, good-faith obligations, prohibitions on misleading price representations, electronic-transaction disclosure duties, rules on electronic consent, and restrictions on standard-form clauses collectively provide a basis for legal scrutiny. The principal limitation is one of normative specificity. Existing law does not establish precise minimum information requirements concerning fare-change mechanisms, the main conditions triggering price increases, or operational standards for evaluating the reasonableness of those mechanisms. Nor does it clearly connect real-time fare changes to the substantive quality of consumer consent. This is the regulatory specificity gap identified in this study.

The gap has practical consequences for legal interpretation. Existing information duties do not expressly answer whether disclosure of the final fare is sufficient when that fare is generated dynamically (Alam, 2025). Likewise, the obligation of good faith does not provide operational indicators for determining when legitimate pricing discretion becomes an unreasonable exercise of contractual power (Anwar, 2026). Contractual fairness in this context therefore requires more concrete interpretative parameters (Chusnida & Permatasari, 2026).

This study proposes three such parameters: information adequacy, meaningful consent, and protection against situational vulnerability. Information adequacy asks whether consumers receive sufficient information about the dynamic nature of fares and the principal conditions driving price variation. Meaningful consent evaluates the quality of the consumer's decision in light of the information available before contracting. Protection against situational vulnerability considers whether the pricing mechanism is applied under circumstances in which consumer needs are heightened or realistic alternatives are materially constrained. These parameters are an analytical construction derived from the interaction between the empirical findings and existing consumer-protection norms; they are not presented as new statutory rules.

Information adequacy does not require disclosure of the platform's entire algorithm or protected trade secrets. The relevant legal objective is the disclosure of information materially necessary for consumers to understand the nature of the transaction. At a minimum, consumers should be able to identify that fares are dynamic, understand the principal conditions that may affect price variation, and appreciate the economic consequences of proceeding with the transaction.

Meaningful consent links information duties to the law of agreement. Electronic consent may remain legally binding, but the quality of the process through which it is formed should be assessed together with disclosure obligations and good faith. Information must therefore be materially relevant to the consumer's decision, rather than merely sufficient to satisfy a formal disclosure exercise.

Protection against situational vulnerability treats the circumstances of the transaction as relevant to the assessment of reasonableness. A fare increase should not be evaluated solely by reference to its magnitude. The timing of the increase, the consumer's need for the service, and the availability of realistic alternatives also shape the consumer's position at the moment of choice. This parameter shifts legal analysis from the question of how much the fare changed to the manner and circumstances in which the change was imposed. Platforms retain freedom to determine prices, but that freedom remains subject to duties of information, good faith, and consumer protection.

Surge pricing is therefore not inherently unlawful, yet its contractual conditions remain open to legal scrutiny.

Indonesia's legal framework thus provides a substantial normative basis for consumer protection but lacks sufficient specificity to operationalize those standards for real-time dynamic pricing. Closing this gap does not require a prohibition on surge pricing. Rather, it requires clearer application of information adequacy, consent quality, and protection against situational vulnerability as parameters for evaluating contractual fairness.

5. Conclusion

Asymmetrical power in surge-pricing transactions is reflected in the unequal capacities of platforms and consumers to access information, understand or influence price-formation mechanisms, and exercise practical choice. The empirical findings show that low perceived transparency of fare information does not necessarily correspond to low awareness of dynamic pricing. Experience of fare changes was significantly associated with reported effects on service-use decisions and with perceptions of disadvantage. These findings indicate that the contractual issues surrounding surge pricing extend beyond disclosure of the fare amount to the information structure, control over price formation, and the practical conditions under which consent is given. Asymmetrical power therefore offers a broader analytical lens than information asymmetry because it captures the platform's capacity to structure the transactional environment itself.

Indonesian law already provides a normative foundation for contractual fairness through rights to information, the obligation of good faith, prohibitions on misleading price representations, rules on electronic consent, and restrictions on standard-form clauses. Its limitation lies in the absence of sufficiently specific criteria for assessing real-time price changes, particularly the adequacy of information, the quality of consent, and the practical conditions of consumer choice when demand is high or alternatives are limited. This study responds to that regulatory specificity gap by proposing three analytical parameters: information adequacy, meaningful consent, and protection against situational vulnerability. These parameters do not create new requirements for contract validity; rather, they provide a structured basis for operationalizing existing consumer-protection and contractual-fairness principles in the context of surge pricing.

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