NUDGES IN AN ON-TIPPING CULTURE: A SYSTEMATIC LITERATURE REVIEW ON CONSUMER PERSPECTIVES IN MALAYSIA

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Abstract. In traditionally non-tipping Asian economies like Malaysia, online food delivery (OFD) applications such as GrabFood, Foodpanda, and ShopeeFood have introduced in-app tipping prompts that challenge long-standing social norms and hospitality service-charge practices. As gig-economy platforms increasingly rely on discretionary consumer tips as additional driver income, understanding how digital interface design shapes tipping behavior has become an important research concern. This systematic literature review synthesizes empirical and theoretical research on consumer behavior, digital choice design, and gig-economy dynamics surrounding digital tipping. Following the PRISMA 2020 protocol, a structured search across three major platforms namely Scopus, Web of Science, and Google Scholar yielded an initial pool of 131 records, which was then cut down to a final synthesis corpus of 24 peer-reviewed works by removing duplicates and screenings. There are three main themes that emerge from the analysis: (1) choice architecture and digital nudging mechanisms, such as prompt timing and default-anchoring effects; (2) psychological tensions between feeling sorry for delivery drivers and getting tired of tipping over time because of fee stacking; and (3) platform fee transparency and equity perceptions, where consumers question whether digital tips can replace fair base wages. Drawing on Nudge Theory, the Theory of Planned Behavior, and Equity Theory, the review proposes a conceptual framework linking digital choice architecture to consumer tipping outcomes through empathy, guilt, and fee-transparency pathways, together with five hypotheses for future study. The study concludes with a targeted research agenda for gig-economy platforms, application designers, and consumer policymakers across Southeast Asia, emphasizing the need for ethical, transparent, post-delivery-oriented tipping architectures that balance short-term gratuity conversion against long-term consumer trust.
Keywords: *in-app tipping, food delivery application, consumer psychology, PRISMA, gig economy*

Introduction

The expansion of the gig economy across Southeast Asia has transformed urban food distribution. In Malaysia, platforms such as GrabFood, Foodpanda, and ShopeeFood have become central to everyday consumption (Tan et. al, 2022) especially following the pandemic era (2020-2023) and in-app tipping was fully introduced in 2020 especially for Grab. This serves as a reward for the riders and drivers where 100% of the tip goes to them. Tipping is a deeply ingrained social norm in Western markets. However, modern mobile payment architecture has introduced in-app tipping prompts at checkout and post-delivery screens. These interface mechanics represent a form of

digital option design by using default values and placement timing to encourage users toward voluntary tipping. This introduces a psychological and economic pressure for Malaysian consumers: balancing traditional social baselines against platform-induced social pressure, empathy for delivery drivers, and rising living expenses.This paper provides a systematic literature review (SLR) evaluating consumer perspectives on digital tipping prompts within Malaysian online delivery apps. Specifically, it addresses three core Research Questions (RQs): (RQ1): How does the way choices are organized within an app (timing, default amounts, and micro-copy) affect how much people tip in online food delivery apps? (RQ2): What psychological factors (situational empathy, perceived guilt, tipping fatigue) drive Malaysian consumers from responding positively to tipping prompts? (RQ3): How do perceptions of platform fee structures and wage equity impact consumer willingness to tip, and what conceptual models explain these relationships?

Significance and contribution of the study

While digital nudging and tipping psychology are gaining attention, research remains scattered across three areas: general digital choice architecture mostly in Western contexts; gig-economy studies focusing on service quality and trust rather than tipping; and tipping-norm research assuming established tipping cultures. This leaves non-tipping countries like Malaysia largely unexplored. Our study fills this gap by examining how digital nudges affect tipping behavior in Malaysia's gig economy, where tipping is not a traditional norm.This matters for two reasons. First, Malaysia offers a unique test for theories like Nudge Theory, TAM, and TPB because consumers face tipping prompts without prior social scripts, highlighting the role of interface design. Second, Malaysia's online food delivery sector is booming and now channels significant tips to drivers, so current design and policy choices will shape future tipping norms, driver income stability, and consumer trust. Our review contributes in three ways: (1) it systematically synthesizes digital tipping research within a non-tipping cultural setting; (2) it combines insights from Nudge Theory, TAM/TPB, and Equity Theory into one framework linking design, psychology, and transparency with tipping behavior; and (3) it proposes five testable hypotheses and a research agenda for gig platforms in Malaysia and similar Southeast Asian markets.

Materials and Methods

This review adheres to the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure transparency and reproducibility across identification, screening, eligibility, and inclusion stages. This systematic review strictly adheres to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) statement guidelines to guarantee methodological rigor, transparency, and reproducibility at every phase of the selection process (Page et al., 2021). The review protocol systematically maps out four distinct stages (1) Identification, (2) Screening, (3) Eligibility and (4) Inclusion.

Database search strategy

A comprehensive search was executed across three primary databases: Scopus, Web of Science and Google Scholar. The search string combined Boolean operators across three primary keyword blocks:

Search String = ("in-app tipping" OR "digital gratuity" OR "tipping prompt" OR "digital nudge") AND ("food delivery" OR "gig economy" OR "mobile application") AND ("Malaysia" OR "Southeast Asia" OR "emerging market")

These three databases were selected in combination to balance disciplinary scale, methodological rigor, and topical coverage. Scopus was included for its broad multidisciplinary indexing across marketing, information systems, hospitality, and behavioral-economics journals. Web of Science was included for its curated core collection of high-impact, rigorously indexed journals, which strengthens the quality profile of the included evidence base. Google Scholar was included to capture grey literature, industry reports, and working papers that are not indexed in subscription databases but are often the first source of empirical data on a fast-moving, industry-driven topic such as gig-economy tipping. This combination follows established database-selection guidance for systematic reviews which recommends pairing subscription-based citation indexes with a broader search engine to reduce the risk of missing relevant studies.

Inclusion and exclusion criteria

As detailed in *Table 1* and *Table 2*, the primary search across Scopus, Web of Science and Google Scholar yielded an initial total of N = 131 records. Following automated and manual de-duplication, 79 unique records entered the title and abstract screening phase. Full-text evaluation was conducted on 31 articles, resulting in a final synthesized corpus of 24 relevant articles.

***Table 1**. The parameter for article inclusion and exclusion criteria.*

Parameter	Inclusion Criteria	Exclusion Criteria	Remarks
Timeline	Published between 2018–2026	Pre-2018 publications	The OFD generally starts in Malaysia on a mass scale in 2018.
Domain	Mobile application user experience, gig-economy consumer behavior, digital tipping	Offline hospitality tipping in established Western tip cultures	Tipping is not a norm in Malaysia hence digital tipping is a fresh prespective to study.
Geography	Focus on Malaysia, ASEAN, or comparable non-tipping emerging markets	Studies exclusive to North America/Europe without non-tipping comparative context	To understand the role of digital nudges and tipping intention/behaviour among Malaysian.
Type	Peer-reviewed journals, indexed conference proceedings, book chapters	Non-peer-reviewed blog posts, news media, opinion editorials	Empirical data that is proven to be reliable and valid.

***Table 2**. Systematic search breakdown across indexed scientific databases.*

PRISMA Stage	Scopus	WoS	Scholar	Total
1. Initial Identification				
• Raw Search Results Retrieved	48	32	51	131
• Duplicate Records Removed	-18	-12	-22	-52
Net Records After De-duplication	30	20	29	79
2. Title & Abstract Screening				
• Excluded (Off-topic / Non-OFD context)	-12	-8	-18	-41
• Excluded (Western-only offline context)	-4	-3	-3	-11
Net Articles for Full-Text Review	14	9	8	31
3. Full-Text Eligibility Assessment				
• Excluded (Lack of consumer/User Experience focus)	-3	-2	-2	-8

Final Synthesis Corpus Included	11	7	6	24

Thematic synthesis of literature

The synthesized corpus reveals three dominant thematic clusters explaining consumer reactions to in-app tipping prompts in Malaysia. These themes were derived using the three-stage thematic synthesis method proposed by Thomas and Harden (2008), commonly used for synthesizing qualitative and mixed-methods evidence within systematic reviews. First, findings, discussion points, and reported constructs from each of the included articles were coded line-by-line, generating an initial set of free codes Next, these free codes were grouped inductively into descriptive categories based on conceptual similarity, independent of the review's own research questions, to avoid prematurely forcing the literature into a predetermined structure. Third, the descriptive categories were interpreted against RQ1–RQ3 to generate the three higher-order analytical themes presented in the following section.

Theme 1: Choice architecture and digital nudging mechanisms

In-app tipping utilizes choice architecture is the practice of organizing the decision-making environment to influence consumer behavior (Thaler and Sunstein, 2008). Research demonstrates that pre-checkout tipping prompts generate significant user hesitation and perceived pressure, as consumers worry that withholding an upfront tip could lead to degraded service, such as delayed delivery or careless handling. Conversely, post-delivery prompts capitalize on immediate post-service relief and satisfaction. Additionally, pre-selected default options serve as psychological anchors that reduce payment friction; however, they risk triggering consumer pushback if they are perceived as mandatory. These findings are not uniform across the literature. However Mirsch et al. (2017) and Weinmann et al. (2016) establish digital nudging as a general interface-design concept without reference to tipping for Southeast Asian markets, whereas Ho et al. (2024) and Fan et al. (2023) narrow the focus specifically to food-delivery tipping interfaces, but in market contexts that differ from Malaysia's non-tipping baseline. This creates a comparability gap: the mechanisms these studies identify is default anchoring or prompt placement are well established in principle, yet their magnitude and consumer interpretation cannot be assumed to transfer directly to a setting where, unlike the contexts these studies examine, no prior social expectation to tip exists. Schneider et al. (2018) offer a more general account of digital nudging's persuasive mechanics but likewise do not test culturally variable baselines, underscoring that the choice-architecture literature is strong on mechanism but weak on cross-cultural boundary conditions.

Theme 2: Psychological drivers: Empathy vs. tipping fatigue

The decision to complete an in-app tip in Malaysia operates largely on situational drivers rather than entrenched social obligations. Malaysian consumers show a significantly higher propensity to tip during severe weather conditions such as heavy rains, late-night orders, long transit distances, or when interacting with vulnerable delivery personnel (elderly or disabled drivers). However, due to the cumulative accumulation of platform delivery charges, small-order fees and taxes, frequent app users report 'tipping fatigue.' Prompts employing emotional micro-copy can trigger psychological reactance, leading consumers to reject gratuity options entirely. The

empathy and fatigue literatures also diverge in scope and method. Tan et al. (2022)and Kowalczuk and Gębski (2021) document situational and demographic drivers of tipping intention through survey-based designs, while Lamb (2024) and Thomas and Jones (2022) approach tipping fatigue from a more macro, industry-observation perspective, with Lamb (2024) account presented as a working paper rather than peer-reviewed research. This methodological asymmetry, survey evidence on the empathy side, more descriptive or industry-report evidence on the fatigue side means the empathy-versus-fatigue tension proposed in this review is theoretically coherent but not yet supported by studies that measure both constructs concurrently within the same consumer sample hence a gap the hypotheses in Section 4.2 are proposed to address the issue.

Theme 3: Platform transparency and equity perception

According to Equity Theory, consumers evaluate transactions by balancing their inputs against perceived driver outcomes. A persistent barrier to digital tipping adoption in Malaysia is the belief that existing platform service and delivery charges already adequately compensate drivers. Consumers frequently criticize in-app tipping prompts as a corporate mechanism for platform operators to pass the responsibility of providing livable base wages onto end consumers. Perspectives on platform equity are similarly split along disciplinary lines. Gillespie (2022) and Benoit et al. (2020) apply consumer-fairness and service-marketing frameworks to argue that tips and platform fees are perceived as substitutable, whereas Khan and Pandey (2023) draw on reactance theory to explain outright resistance to tipping prompts, a subtly different mechanism (perceived coercion) from perceived unfairness. Grab Holdings (2022) industry report, on the other hand reports aggregate gratuity volume without addressing individual-level equity perceptions at all, illustrating a broader pattern in this theme: platform-reported outcome data and independent, theory-driven consumer research have yet to be reconciled, leaving open whether high aggregate tipping volumes reflect genuine equity resolution or simply reflect prompt-driven compliance despite unresolved fairness concerns.

Construct operationalization, conceptual framework and hypotheses

The conceptual framework (*Figure 1*) operationalizes the core elements observed across the synthesized literature into testable construct categories (*Table 3*):

Table 3*. Core elements across the literature.*

Construct Type	Construct Name	Operational Definition	Theoretical Basis
Independent (IVs)	Digital Choice Architecture	UI elements controlled by the app (prompt placement, pre-checked default buttons, micro-copy text).	Nudge Theory (Thaler and Sunstein, 2008)
Mediators (M)	Empathy vs. Guilt / Fatigue	Psychological states induced during ordering (bad weather empathy vs. guilt or fee burnout).	Theory of Planned Behavior & Social Exchange
Moderator (W)	Fee Transparency & Equity	Consumer belief that delivery fees cover fair driver base pay vs. passing wage duties to users.	Equity Theory (Adams, 1965)
Dependent (DVs)	Consumer Response Outcomes	Voluntary completion of tip, gratuity amount (RM), and overall platform retention/trust.	Technology Acceptance Model (TAM)

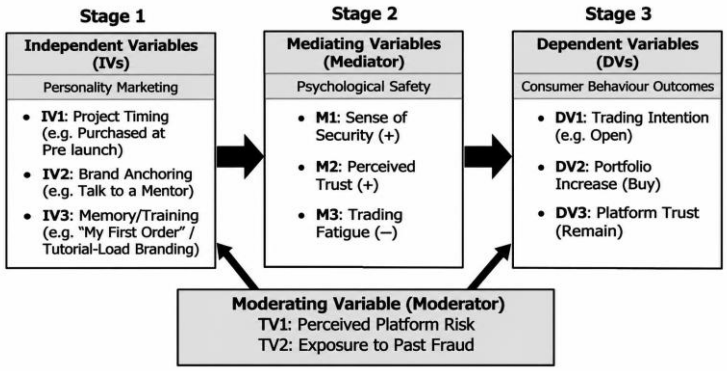


Figure 1. *Conceptual framework.*

Testable theoretical hypotheses

Based on the synthesized findings, five formal hypotheses are proposed for future empirical validation: (H1) (Prompt Timing): Pre-checkout tipping prompts induce higher perceived social guilt (M2) and tipping fatigue (M3) than post-delivery prompts, negatively impacting long-term platform trust (DV3); (H2) (Default Anchoring): Higher pre-selected default amounts (IV2) increase short-term tipping completion (DV1) but accelerate tipping fatigue (M3) among frequent platform users; (H3) (Empathy Mediation): Situational empathy (M1) positively mediates the relationship between environmental conditions (e.g., severe weather, late hours) and in-app tipping completion (DV1); (H4) (Guilt Mediation): Emotionally aggressive micro-copy (IV3) triggers psychological reactance, which negatively impacts consumer intention to tip (DV1); (H5) (Fee Transparency Moderation): Perceived platform fee transparency (W1) positively moderates the effect of situational empathy (M1) on tipping intention (DV1), such that consumers are more willing to tip when assured of fair baseline driver pay.

Empirical literature synthesis matrix

This study synthesizes the Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB) and Nudge Theory to model consumer responses to digital tipping prompts in a non-tipping culture through three core interactions. Regarding RQ1, the literature confirms that interface-level choices, such as prompt timing, default settings, and micro-copy function as digital nudges as described by Mirsch et al. (2017) and Weinmann et al. (2016). Pre-checkout tipping prompts trigger anticipatory guilt sinceconsumers worry that drivers will see withheld tips before service completion. In contrast, post-delivery prompts align with Schneider et al. (2018), who associate completed-transaction framing with less friction in digital decisions. These findings suggest that platforms aiming for sustainable tipping should favor post-service prompts over pre-checkout defaults that pressure consumers. For RQ2, the tension between empathy and fatigue aligns with Azar (2020) behavioral economics view that tipping blends altruism, social signaling, and habit. In Malaysia's non-tipping context, empathy is situational, driven by visible hardships like bad weather or vulnerable drivers; rather than habitual. This supports Gössling et al. (2021) and Duhaime and Woessner (2019), who argue gig platforms are reshaping tipping psychology rather than digitizing existing norms. However, fee-stacking effects described by Lamb (2024) and Thomas and Jones (2022) show that repeated layered charges diminish empathy, explaining why frequent users experience more tipping fatigue than occasional users. RQ3 highlights fee

transparency and wage equity as key moderators of tipping intention. Consumers often view in-app tips as substitutes for fair base pay, echoing Gillespie's (2022) findings that gratuities and fees are seen as interchangeable rather than complementary. This perception aligns with Equity Theory (Adams, 1965) and research by Khan and Pandey (2023) and Benoit et al. (2020), showing that perceived unfair fee structures can provoke consumer resistance to tipping prompts. Even significant reported tipping volumes, such as the RM50 million tipped to Malaysian drivers in a year (Grab Holdings, 2022), do little to change individual perceptions without clear, transparent fee breakdowns at payment (*Table 4*).

Table 4*. Categorizes the empirical findings from the synthesized corpus across core literature themes.*

Literature Theme	Key Empirical Findings	Consumer Reaction / Impact	Primary Sources
Prompt Timing	Pre-checkout prompts create service anxiety; post-delivery prompts rely on post-service gratitude.	High hesitation & guilt at checkout vs. higher satisfaction post-service.	Ho et al. (2024); Fan et al. (2023)
Default Anchoring	Pre-selected RM values act as default anchors.	Lowers payment friction but risks user annoyance if defaults are set too high.	Schneider et al. (2018); Mirsch et al. (2017)
Emotional Drivers	Tipping is heavily situational (bad weather, late night, elderly riders).	High tip rates during extreme conditions; low tip rates for standard orders.	Tan et al. (2022); Kowalczuk and Gębski (2021)
Tipping Fatigue	Stacked fees (delivery + small order + SST) lower willingness to add gratuity.	Prompt rejection; negative platform sentiment over 'fee stacking.'	Lamb (2024); Thomas and Jones (2022)
Platform Equity	Belief that platforms push wage responsibility onto consumers via tips.	Resistance to tipping; preference for direct cash tips over in-app tips.	Gillespie (2022); Benoit et al. (2020)

These insights connect with the broader digital-payment landscape in Malaysia and ASEAN. As mobile e-wallet adoption rises (Taha et al., 2023) and online food delivery (OFD) usage grows among digitally native younger consumers (Tan et al., 2022), in-app tipping prompts will become more common and scrutinized. Poorly designed choice architecture may generate con-sumer reactance rather than increased gratuities, highlighting the importance of thoughtful prompt placement and transparency. Service quality concerns (Belanche et al., 2021) further show that tipping willingness intertwines with overall platform trust, not just prompt design. Theoretically, this review extends TAM and TPB by incorporating per-ceived fairness as a moderating factor influencing whether nudges foster sustained tipping or lead to fatigue and distrust. Practically, it recommends that Malaysian and similar ASEAN OFD platforms prioritize post-delivery tipping prompts, limit default tip anchors to avoid coercion, and provide clear, itemized fee disclosures distinguishing platform fees from driver gratuities. Limitations include reliance on a modest, geographically concentrated corpus of 20 articles. Future research should empirically test the five hypotheses proposed in Section 4.2 using mixed methods combining platform data and consumer surveys across multiple Southeast Asian markets to validate the empathy–fatigue–transparency framework beyond Malaysia.

Conclusion

Digital tipping prompts in Malaysian food delivery applications represent a significant shift in consumer-facing interface design within a traditional non-tipping

culture. While these nudges successfully generate supplementary income for gig workers, aggressive prompt timing and lack of fee transparency risk causing consumer fatigue and pushback. Platform developers must balance short-term gratuity conversion against long-term user trust by designing ethical, post-delivery tipping architectures.

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Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

REFERENCES

[1] Adams, J.S. (1965): Inequity in social exchange. – In: Berkowitz, L. (ed.) Advances in Experimental Social Psychology, Academic Press 2: 267-299.
[2] Azar, O.H. (2020): The economics of tipping: A behavioral perspective. – Journal of Economic Behavior and Organization 174: 380-391.
[3] Belanche, D., Casaló, L.V., Flavián, C., Pérez-Rueda, A. (2021): The role of customers in the gig economy: How perceptions of working conditions and service quality influence the use and recommendation of food delivery services. – Service Business 15(1): 45-75.
[4] Benoit, S., Klose, S., Ettinger, A. (2020): Is it fair? How consumers evaluate delivery fees versus tip options in peer-to-peer platforms. – Journal of Service Research 23(4): 411-429.
[5] Duhaime, E.P., Woessner, Z.W. (2019): Explaining the decline of tipping norms in the gig economy. – Journal of Managerial Psychology 34(4): 233-245.
[6] Fan, X., Zhang, Y., Liu, Q. (2023): The influence of default options on tipping behavior in mobile app interfaces. – Computers in Human Behavior 139: 10p.
[7] Gillespie, B.J. (2022): Tipping vs. platform fees: Consumer perceptions of fair pay in the gig economy. – Journal of Consumer Affairs 56(2): 845-862.
[8] Gössling, S., Hall, C.M., Social, R. (2021): Digitalized service work and the shift in tipping psychology post-crisis. – The Service Industries Journal 41(9): 612-630.
[9] Grab Holdings (2022): Grab 2021 ESG report: Malaysian consumers tip over RM50 million to delivery partners. – Grab Newsroom 2p.
[10] Ho, C.W., Lee, K.T., Chen, Y.S. (2024): Navigating digital gratuity: How user interface layouts alter consumer payment choices in food delivery apps. – International Journal of Human-Computer Interaction 40(5): 1120-1134.
[11] Khan, M., Pandey, R. (2023): Platform economy and consumer reactance: Evaluating forced gratuity prompts. – Journal of Retailing and Consumer Services 71: 10p.
[12] Kowalczuk, I., Gębski, J. (2021): Consumer motives for digital tipping: Empathy, social norm, or service satisfaction? – Journal of Retailing and Consumer Services 62: 10p.
[13] Lamb, A. (2024): Technology and COVID upended tipping norms: Will consumers keep paying? – Harvard Business School Working Knowledge 3p.
[14] Mirsch, T., Lehrer, C., Jung, R. (2017): Digital nudging: Altering user behavior in digital environments. – Proceedings of the 13th International Conference on Wirtschaftsinformatik (WI2017) 15p.
[15] Page, M.J., McKenzie, J.E., Bossuyt, P.M., Boutron, I., Hoffmann, T.C., Mulrow, C.D., Shamseer, L., Tetzlaff, J.M., Akl, E.A., Brennan, S.E., Chou, R., Glanville, J., Grimshaw,

J.M., Hróbjartsson, A., Lalu, M.M., Li, T., Loder, E.W., Mayo-Wilson, E., McDonald, S., McGuinness, L.A., Stewart, L.A., Thomas, J., Tricco, A.C., Welch, V.A., Whiting, P., Moher, D. (2021): The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. – BMJ 372: 9p.

[16] Schneider, C., Weinmann, M., vom Brocke, J. (2018): Digital nudging: Guiding online decisions through UI design. – Communications of the ACM 61(7): 67-73.

[17] Taha, V.A., Hasan, M., Rahman, N.A. (2023): Mobile e-wallet adoption and payment friction in ASEAN emerging markets: A modified UTAUT approach. – Telematics and Informatics Reports 9: 10p.

[18] Tan, L.H., Ahmad, Z., Kassim, N.M. (2022): Factors influencing the adoption of online food delivery services in Malaysia during and after pandemic disruptions. – Asian Journal of Business Research 12(1): 45-68.

[19] Thaler, R.H., Sunstein, C.R. (2008): Nudge: Improving decisions about health, wealth, and happiness. – Yale University Press 293p.

[20] Thomas, A., Jones, P. (2022): Tipping fatigue in the era of automated digital checkouts. – Journal of Consumer Marketing 39(4): 401-412.

[21] Thomas, J., Harden, A. (2008): Methods for the thematic synthesis of qualitative research in systematic reviews. – BMC Medical Research Methodology 8: 10p.

[22] Weinmann, M., Schneider, C., vom Brocke, J. (2016): Digital nudging. – Business and Information Systems Engineering 58(6): 433-436.