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**DIGITAL MARKETING ADOPTION AND CONTINUANCE
CHALLENGES IN MALAYSIAN MSMES:
A SYSTEMATIC REVIEW**

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Abstract:

This systematic literature review synthesises Malaysian empirical evidence on the challenges that constrain the adoption and post-adoption continuance of digital marketing among MSMEs, with implications for sustained use support. Following PRISMA 2020, Databases (Scopus and Web of Science) were searched for peer-reviewed English-language studies (2015–2025). After deduplication and screening, 22 studies were included from 107 records (71 unique). A six-item quality checklist was applied. A total of 156 challenge statements were extracted and coded via thematic synthesis. Next, they were classified by phase as adoption, continuance or cross-cutting when phase indicators were unclear. Six themes emerged. Adoption constraints were dominated by capability and readiness gaps and ecosystem/infrastructure bottlenecks, pointing to skills deficits, platform complexity and uneven enabling conditions. Continuance-related challenges were less frequently reported but clustered around resource scarcity and opportunity costs, trust/risk, reputational exposure and market volatility, suggesting that sustained use declines when effort, perceived risk and uncertain returns outweigh perceived benefits. Over half of the challenges were cross-cutting, indicating limited phase specificity in the Malaysian corpus and limiting insights into discontinuance mechanisms. Future research should operationalise phase-specific constructs and use longitudinal or process-sensitive designs. Practically, programmes should complement training with maintenance support such as routines, feedback loops and risk-

mitigation practices to reduce the effort–return burden of sustained digital marketing use.

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Keyword:

Adoption, Continuance, Digital Marketing, Malaysia, Micro-Entrepreneurs, MSMEs, Systematic Literature Review



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Introduction

Micro, small and medium-sized enterprises (MSMEs) comprise the majority of businesses in Malaysia. SME Corporation Malaysia (2023) reports that this segment constantly faces various constraints in digitalisation, technology adoption and strategic capability development. The emergence of digital marketing (DM) has become one of the routes for MSMEs to penetrate the market, as consumers now rely heavily on search engines, social media and other digital platforms to find information and make purchasing decisions (Kannan & Li, 2017; Lamberton & Stephen, 2016).

Previous studies have shown that digital channels can help MSMEs reach more customers and enter the market at lower costs (Ainin et al., 2015; Derus & Bakar, 2024; Mahomed & Mokhtar, 2025). However, these benefits often depend on MSMEs' ability to continuously produce content, learn from data and maintain customer engagement—a capability often lacking in resource-constrained small firms (AlKoliby et al., 2023; Cheing et al., 2020; Mokhtar et al., 2016; Othman et al., 2024).

In Malaysia, government policy views the digitalisation of MSMEs as crucial to enhancing national competitiveness and ensuring more inclusive growth. Therefore, DM, e-commerce and capacity building are considered primary mechanisms to increase productivity and facilitate MSMEs' access to markets (Economic Planning Unit, 2021a; 2021b). This policy approach aligns with findings that the digital divide cannot be solved by simply providing access to technology. For example, the World Bank (2023) emphasised that firms need to have strong internal capabilities and use digital tools in their daily operations, rather than merely using technology in a basic way.

Conceptually, distinguishing between DM adoption and continuance is important because most technology adoption theories explain the factors that motivate users to start using a technology based on pre-use beliefs, such as perceived usefulness, perceived ease of use (Davis, 1989), performance and effort expectations (Venkatesh et al., 2003) and attitudes and sense of control over behaviour (Ajzen, 1991). In contrast, continuance depends on post-use experiences with the technology, including the extent to which initial use meets expectations (confirmation), satisfaction levels and patterns of use that become habitual over time (Bhattacharjee, 2001; Limayem et al., 2007).

In the MSME context, the decision to discontinue DM use can be rational, as they face recurring opportunity costs, ongoing demands to produce content and the need to maintain customer engagement (Othman et al., 2024; Ratnasingam et al., 2021). This challenge is also compounded by doubts about return on investment (Ratnasingam et al., 2021) and by uncertainty arising from changes in platform algorithms that affect visibility and marketing performance (Dwivedi et al., 2021; Enshassi et al., 2025). This shows that discontinuities are not simply due to a lack of awareness or digital literacy but also due to strategic and operational considerations.

Although research on DM in Malaysia is growing, the evidence remains fragmented across topics and disciplines, making it difficult to form a clear, cohesive picture. Only a small number of studies have examined both key dimensions of DM use: the initial decision to adopt and the longer-term commitment to continue. This gap limits our ability to build a robust foundation for designing programmes and policies that genuinely meet MSME needs.

Accordingly, this systematic literature review (SLR) follows PRISMA 2020 (Page et al., 2021) to synthesise Malaysian empirical evidence on challenges that hinder both DM adoption and continuance among MSMEs. The review addresses two Research Questions (RQ):

RQ1: What challenges hinder the adoption and sustained use of digital marketing among Malaysian MSMEs?

RQ2: What research gaps exist in Malaysian empirical studies on digital marketing adoption versus continuance, and what are the implications for designing interventions and programmes that support sustained digital marketing practice?

By incorporating empirical evidence from Malaysia, this SLR helps to explain how the challenges faced by MSMEs differ between initial adoption and continued use of DM. The study also systematically organises key themes related to the reported constraints and identifies implications for capacity building programmes and policies that place greater emphasis on sustainability.

This SLR views DM not only as a decision to begin using it, but also as an ongoing practice that requires continuous upkeep — shaped by what firms experience after adoption and by the shifting pressures within the wider platform ecosystem (Bhattacharjee, 2001; Dwivedi et al., 2021; Limayem et al., 2007). The next section defines DM in the context of MSMEs and explains the distinction between adoption and continuance which serves as the analytical basis for this review.

Digital Marketing for MSMEs

DM is a major component of modern business strategy. According to Kannan and Li (2017) and Lamberton and Stephen (2016), DM refers to the use of digital technologies and channels to create, deliver and communicate value through customer engagement across multiple touchpoints, whether owned, earned, or paid, spanning various platforms and devices. It encompasses channels such as social media, search engine optimisation (SEO), paid advertising, email and content which work together to enhance reach, engagement and conversion. Recent studies emphasise that DM is not merely a technical activity but a socio-technical phenomenon. It is shaped by platform architecture, algorithms, interfaces, content formats and interactive mechanisms that influence visibility and conversion rates (Dwivedi et al., 2021; Kannan & Li, 2017). Kellogg et al. (2020) further argue that these algorithmic systems exert a form of 'algorithmic control' over users by restricting, recording, and rewarding specific digital behaviours, which complicates how MSMEs must align their routine marketing activities with ever-changing platform rules. Hence, MSMEs that want to use DM must recognise that adopting DM is not a one-off decision but one that requires continuous adaptation and active engagement with platform rules and customer feedback (Dwivedi et al., 2021; Lamberton & Stephen, 2016).

This SLR conceptualised DM as a set of routine activities spanning multiple marketing channels. These activities encompass social media engagement, platform-based customer interactions and the use of e-commerce or marketplace sites to support promotions and conversions (Ainin et al., 2015; Parveen et al., 2015; Tajudeen et al., 2018). Evidence shows that how MSMEs use social media is shaped by the level of interactivity and the trust they build with their audience. These factors influence how they perceive its performance benefits. This reinforces the idea that real value comes from consistent, ongoing engagement, not simply from having access to the platforms (Ainin et al., 2015; Parveen et al., 2015). In e-commerce studies by Alam et al. (2011) and Kartiwi et al. (2018), it was found that external pressures from customers and competitors often trigger initial adoption, but the benefits realised are inconsistent. This highlights the need for ongoing implementation and capability development beyond the initial stage. In the Malaysian context, Malik et al. (2025) highlighted that MSMEs in Johor struggle with low digital literacy and tight financial resources, although DM offers many opportunities. This made it difficult for them to move from simply adopting DM to using it in a sustained and strategic manner.

Adoption and Continuance in Digital Marketing

Adoption and continuance are two distinct phases because the forces that drive SMEs to "start" using DM are often different from those that sustain them once their efforts are already delivering value to the business.

DM adoption is commonly treated as the initial decision and first use of a channel or tool whereby behaviour is primarily intention-led and shaped by beliefs about value and effort. The Technology Acceptance Model (TAM) by Davis (1989) argues that perceived usefulness and perceived ease of use influence acceptance decisions, while the Theory of Planned Behaviour (TPB) by Ajzen (1991) extends the adoption explanation by incorporating attitudes, subjective norms and perceived behavioural control. The Unified Theory of Acceptance and Use of Technology (UTAUT) integrate these determinants with four key constructs -performance expectancy, effort expectancy, social influence and facilitating conditions (Venkatesh et al.,

2003). Adoption research often defines “going digital” as establishing a presence or launching a campaign, such as setting up a Facebook/Instagram business page, experimenting with an initial paid boost or listing products on a platform (Kannan & Li, 2017; Lamberton & Stephen, 2016). A study in Malaysia also looks at what drives MSMEs to start using social media. It finds that early adoption is often influenced by how cost-effective the tools appear and how well they align with the business’s needs (Ainin et al., 2015).

DM continuance refers to the decision to continue using a DM channel after the initial experience, where users' evaluations of that experience become central. The dominant IS explanation comes from the Expectation–Confirmation Model (ECM), which suggests that users are more likely to continue using a system when their actual experience meets or exceeds their expectations. This confirmation or disconfirmation shapes their satisfaction and their sense of how useful the system really is, which then drives ongoing use (Bhattacharjee, 2001). Complementing this, IS Success models emphasise that continued use largely depends on the real benefits users feel they are receiving and on their satisfaction with those results beyond the initial intention (DeLone & McLean, 2003). Behavioural research also shows that repeated use can, over time, become a habit. This means users continue not because they consciously intend to, but because it becomes automatic. As this happens, intention becomes a weaker predictor, while habit strength and routine behaviour become more important for persistence (Limayem et al., 2007).

In the Malaysian MSME context, recent findings by Ashaari et al. (2025) show that although many firms begin using DM, they often struggle to reach the stage where it becomes part of their everyday routine. This usually happens due to a lack of ongoing strategic support which contributes to high discontinuance rates. In practice, continuance is evident when entrepreneurs consistently post content each week, reply to customer messages, review basic analytics and keep improving their visuals and targeting. Over time, this often means going beyond simple features and adopting more advanced, structured routines (Jasperson et al., 2005). Ahmad and Rasheed (2024) further note that to reach this level, MSMEs need to overcome internal strategic challenges so that DM becomes a stable core capability rather than a short-term initiative. Recent work in DM and social media marketing also shows that as platform environments continue to change, entrepreneurs may reassess the value they get from using these tools. This means that their real experiences after adoption — and whether these experiences meet their expectations — become especially important for keeping them engaged over time (Dwivedi et al., 2021).

Methodology

Research Design

We used an SLR approach to synthesise empirical evidence on DM challenges faced by MSMEs in Malaysia. By adhering to the PRISMA 2020 guidelines (Page et al., 2021), this SLR ensures a transparent and auditable process for identifying, filtering and aggregating diverse evidence themes. Following these accepted protocols in management and technical domains (Kitchenham & Charters, 2007; Tranfield et al., 2003) allows us to uncover aggregate patterns to answer our research questions.

Eligibility Criteria

In line with SLR guidelines (Kitchenham & Charters, 2007; Page et al., 2021), we established a priori criteria to ensure a focused and methodologically consistent evidence base. To ensure we collected only the most relevant evidence, we included peer-reviewed empirical studies published in English between 2015 and 2025 that examined DM activities in the context of MSMEs in Malaysia. We filtered out non-empirical papers, studies involving non-business populations and general ICT/IS research that lacked marketing focus. Table 1 summarises the eligibility criteria to clearly define the boundaries of this SLR.

Table 1: Eligibility Criteria

Category	Inclusion	Exclusion
Study Type	Empirical (quantitative/qualitative/mixed)	Conceptual/non-empirical
Geography	Malaysia / Malaysian sample	Non-Malaysia (E1)
Phenomenon	Digital marketing activities	ICT/IS without marketing (E2)
Population	SMEs, microenterprises, entrepreneurs	Non-MSMEs contexts (E3)
Evidence	Clear empirical findings	No relevant findings for RQ1/RQ2 (E4)
Document	Peer-reviewed, English	Theses, conference papers, reports
Timeframe	2015–2025	Outside timeframe

This ensured that the review drew on a coherent body of peer-reviewed empirical evidence aligned with the study's aims.

Search Strategy

Two major academic databases, Scopus and Web of Science (WoS), were used for their comprehensive coverage of management, entrepreneurship and digital business research. We constructed search strings using a combination of terms related to DM, MSMEs and Malaysian identifiers using the Boolean method and restricted to peer-reviewed English-language articles published between 2015 and 2025. To ensure reproducibility, the full search strings for Scopus and WoS are presented in Table 2.

To formulate a comprehensive search strategy, we deconstructed the research questions using an adapted PICO framework (Population, Intervention/Interest, Comparison, Outcome) (Booth et al., 2016; Kitchenham & Charters, 2007). The Population comprised Malaysian MSMEs, while the Intervention/Interest captured DM-related activities (including online marketing and social media). Comparison was not applicable for this qualitative synthesis. Outcomes focused on adoption and discontinuance challenges and issues relating to the sustainability of DM practice.

Table 2: Scopus and WoS Search Queries

Database	Search String
Scopus	TITLE-ABS-KEY (("digital marketing" OR "online marketing" OR "internet marketing" OR e-marketing OR "social media marketing" OR "social media" OR "social commerce" OR "content marketing" OR "digital promotion" OR "online promotion") AND (SME* OR MSME* OR "small business*" OR "owner-manag*" OR entrepreneur* OR microenterpris* OR "micro enterprise*" OR microbusiness* OR "micro firm*") AND (malaysia OR malaysian))
WoS	TS=(("digital marketing" OR "online marketing" OR "internet marketing" OR e-marketing OR "social media marketing" OR "social media" OR "social commerce" OR "content marketing" OR "digital promotion" OR "online promotion") AND (SME* OR MSME* OR "small business*" OR "owner-manag*" OR entrepreneur* OR microenterpris* OR "micro enterprise*" OR microbusiness* OR "micro firm*") AND (Malaysia OR Malaysian))

Screening and Study Selection

The final searches were conducted on 3 January 2026, followed by a multi-stage screening process consistent with PRISMA 2020 (Page et al., 2021). The searches identified 107 records (Scopus: 68; WoS: 39). After deduplication using Microsoft Excel, 71 unique records remained for title-and-abstract screening. Using the established eligibility criteria (empirical evidence, Malaysian context, MSME/SME population and DM focus), 34 records were excluded, and 37 reports were expanded to full-text assessment.

Five full texts could not be retrieved due to access restrictions, leaving 32 reports available for full-text assessment. During full-text review, 10 reports were excluded based on the detailed criteria in Table 1: one under E2 (not DM), two under E3 (not MSME) and seven under E4 (non-empirical/insufficient evidence). The final synthesis included 22 studies. Figure 1 depicts the study selection process following PRISMA 2020.

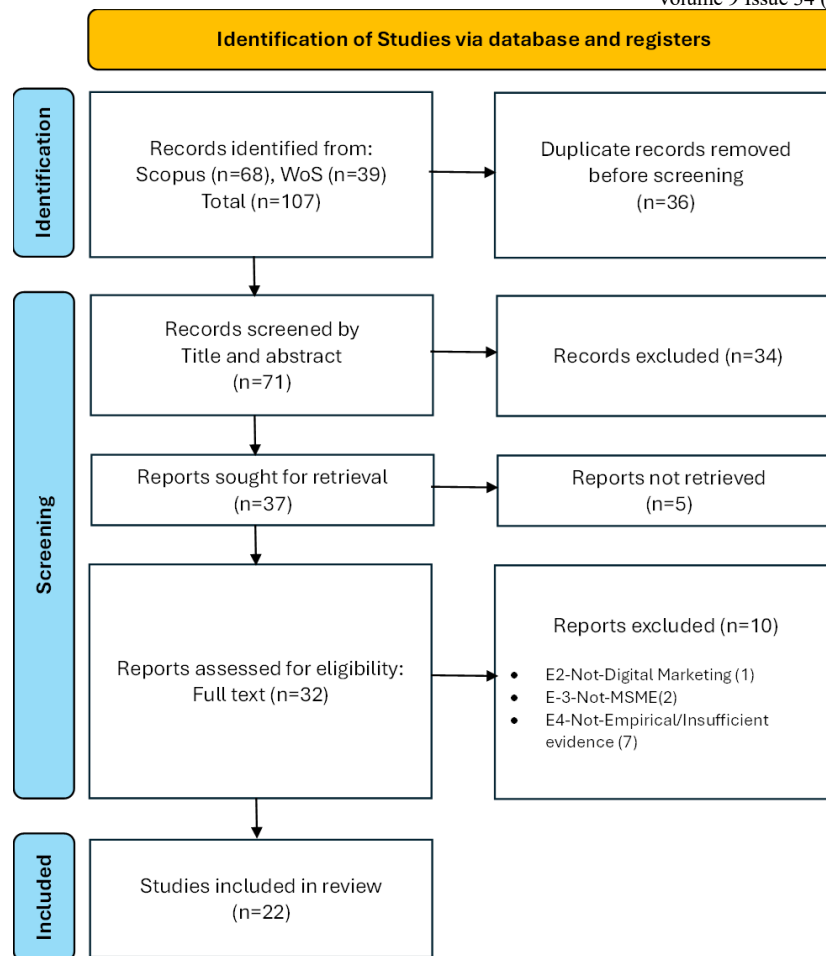


Figure 1: PRISMA 2020 Flow Diagram for Study Selection

Quality Assessment

We conducted a quality assessment of the methodological soundness and clarity of reporting of the included studies, in line with the guidelines for conducting SLR set out by Kitchenham and Charters (2007). The assessment checklist consisted of six criteria (QA1–QA6) adapted from Abouzahra et al. (2020) and tailored to the review’s focus on DM challenges among Malaysian MSMEs. Each criterion was scored on a three-point scale — Yes (1), Partial (0.5) or No (0), then the scores were added up, giving each study’s total between 0 and 6. The full checklist and individual study scores are detailed in Appendix B.

Findings

Publication by Year

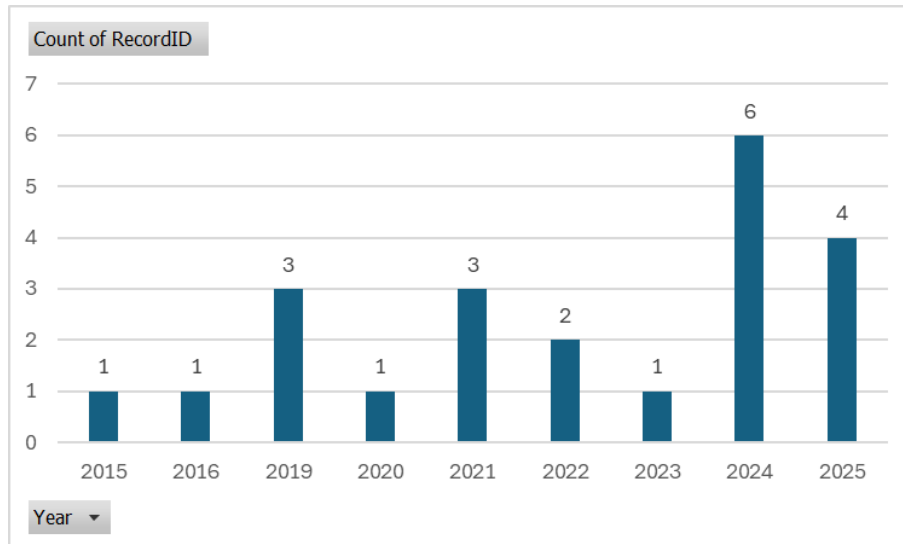


Figure 2: Annual Distribution of Included Studies

As shown in Figure 2, the publication pattern from 2015 to 2025 was uneven and no eligible studies were found in 2017 and 2018. Between 2015 and 2023, the number of publications remained moderate, ranging from one to three studies per year. However, this pattern changed towards the end of the review period, with a significant increase in 2024 (six studies), followed by another four studies in 2025. Almost half of the corpus was published in the last two years, reflecting increasing scholarly attention to the challenges of DM among MSMEs in Malaysia.

Geographic Distribution

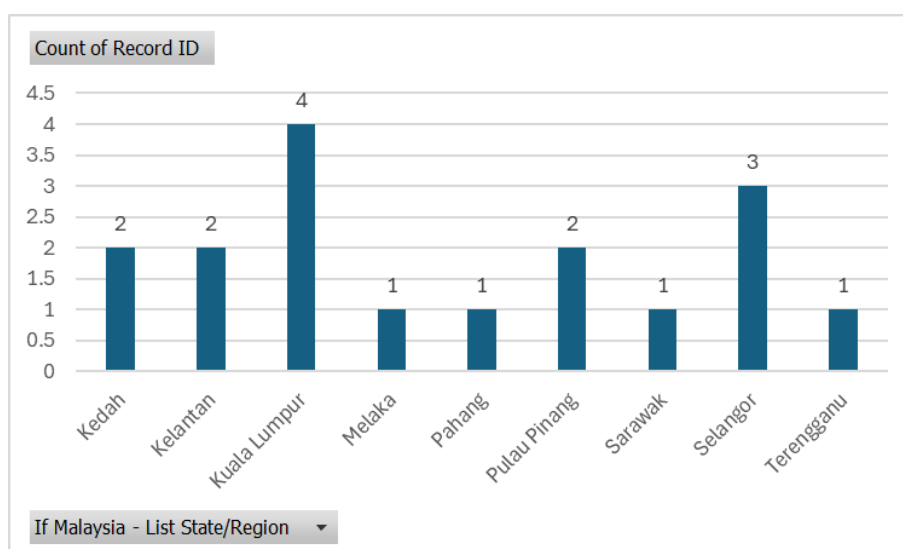


Figure 3: Geography (State-Level) Distribution of Included Studies

As shown in Figure 3, more than half of the corpus ($n = 13$; 59%) reported findings at the national level without specifying the state. When the state context was specified, coverage was concentrated in the Klang Valley, particularly Kuala Lumpur ($n = 4$) and Selangor ($n = 3$). Outside of these regions, representation was limited. Kedah ($n = 2$), Kelantan ($n = 2$) and Penang ($n = 2$) appeared occasionally, while Melaka, Pahang, Terengganu and Sarawak were each mentioned only once. This concentration on urban areas may limit the transferability of the findings and risk under-representing the infrastructural and behavioural challenges faced by micro-entrepreneurs in non-urban areas. East Malaysia was minimally represented with only one reference to Sarawak.

Note. State-level counts are non-mutually exclusive: a single study is counted against each state reported in its sample/setting; studies that did not specify state-level scope are coded as “Not stated”.

Distribution by Methodology and Sample Scale

Of the 22 studies reviewed, most have used quantitative methods ($n = 14$; 63.6%). There were significantly fewer qualitative studies ($n = 7$; 31.8%) and only one study used mixed methods ($n = 1$; 4.5%). This pattern suggests that research on DM challenges in MSMEs in Malaysia still relies heavily on cross-sectional surveys, while in-depth qualitative investigations remain scarce. Regarding sample size, more than half of the studies included more than 100 participants ($n = 12$), while the remaining studies involved smaller groups ($n = 10$). A summary of the methodologies and study sectors is shown in Table 3.

Table 3: Methodological and Sectoral Mapping of Reviewed Studies (n=22)

Category	Sub-Category	Frequency (n)	References (Examples)
Methodology	Quantitative	14	Ahmad and Rasheed (2024), Ratnasingam et al. (2021), Samat et al. (2024)
	Qualitative	7	Md Faudzi et al. (2024), Othman et al. (2022), Tajudin et al. (2021)
	Mixed-Methods	1	Othman et al. (2024)
Sample Size	Large ($n > 100$)	12	Enshassi et al. (2025), Hashim et al. (2024), Wasudawan et al. (2025)
	Small ($n < 50$)	10	Cheing et al. (2020), Godjali and Supramaniam (2025), Mokhtar et al. (2016)
Industry Sector*	F&B / Retail	13	Rashid et al. (2021), Sajilan et al. (2019), Ramli and Razak (2023)
	Manufacturing	7	Ali Abbasi et al. (2022), AlKoliby et al. (2023)
	Services	6	Ainin et al. (2015), Enshassi et al. (2025)
	Agriculture	3	Othman et al. (2022), Othman et al. (2024)

Note. Sector counts are non-mutually exclusive where studies reported multi-sector samples.

Distribution by Industry Sector

Sector coverage in the included studies is concentrated on consumer-oriented contexts. As shown in Table 3, the food and beverage and retail sectors appear most frequently ($n = 13$; 59.1%). Manufacturing ($n = 7$) and services ($n = 6$) are next whereas the agricultural sector is under-researched ($n = 3$). This suggests that the existing evidence does not fully represent the diversity of MSMEs in Malaysia. Most findings also reflect conditions in urban areas, while few studies examine challenges in rural areas or in specific sectors.

Quality Assessment

The quality assessment included studies indicated a strong level of methodological rigour (Mean = 4.93/6.00, SD = 0.70) (Appendix B for the full scoring matrix). Based on the established thresholds (High = 5.0–6.0; Moderate = 3.0–4.5; Low < 3.0), most studies (68.2%, $n = 15$) were categorised as high quality, while the remainder (31.8%, $n = 7$) were at a moderate level. No studies fell into the low category. Consistently, the highest scores were obtained for clarity of research purpose and adequacy of context definition (QA1 and QA2 ≈ 1.00). In contrast, the lower average score for the clarity of challenge/discontinuance construct (QA4; Mean = 0.57) indicates that barriers and discontinuities are rarely explicitly stated, compared to more general, usage-oriented constructs. This finding reinforces the need for a synthesis focusing on challenges in the MSME DM literature in Malaysia.

Analysis and Thematic Synthesis of Challenges

A total of 156 challenge statements were collected to identify the constraints reported across all included studies. Each statement was assigned a main theme for frequency analysis purposes. If a statement had more than one constraint, the additional information was recorded as a secondary note but was not counted in the final analysis. Most studies did not clearly distinguish between challenges in the initial acceptance phase and the continuation phase. Therefore, a conservative phase labelling approach was used. If phase information was unclear, the statement was retained in the cross-cutting category.

Each statement was used as a unit of analysis, and all were coded into six high-level themes. These themes were chosen to ensure that interpretation remained clear and to avoid excessive fragmentation of categories, given that the Malaysian corpus of studies is small and heterogeneous (see Table 4). Next, each statement was labelled according to phase—either the adoption phase (pre-use or initial uptake), the continuation phase (post-adoption maintenance), or a cross-cutting category for statements that spanned phases or lacked clear phase information. The final results are reported in the form of n , which is the number of statements in each theme or phase, and k , which is the number of unique studies that contributed to the statement.

All coding and phase marking processes were performed by a single reviewer. The reliability of the results was strengthened using a clear codebook, a decision log and two-pass coding with a short washout period. A random check of coded extracts against the source text was also applied. A codebook for theme levels is provided in Appendix A for transparency and auditability.

**Table 4: Distribution of Digital Marketing Challenges by Theme and Phase
(n Statements; k Studies).**

Theme	Adoption		Continuance		Cross-Cutting		Total		
	n	k	n	k	n	k	n	%	k
Resource scarcity and opportunity cost	10	6	5	5	26	13	41	26.3	17
Ecosystem and infrastructure bottlenecks	15	9	1	1	14	10	30	19.2	13
Capability, complexity, and readiness deficits	20	11	2	2	12	7	34	21.8	15
Attitudinal resistance and strategic disengagement	8	8	2	2	11	8	21	13.5	14
Trust, risk, and reputational exposure	3	2	4	3	10	5	17	10.9	8
Market constraints and demand uncertainty	0	0	4	4	9	4	13	8.3	6
TOTAL	56	16	18	11	82	19	156	100.0	22

Note:

- *n* = number of extracted challenge statements; *k* = number of unique studies contributing at least one statement to the cell.
- Phase tagging: Adoption (pre-use/initial uptake), Continuance (post-adoption maintenance), Cross-cutting (phase unclear or applicable to both).

RQ1: Challenges in Adoption and Sustained Use of Digital Marketing

To address RQ1, each extracted challenge statement ($n = 156$) was phase-tagged as adoption (pre-use/initial uptake), continuance (post-adoption maintenance), or cross-cutting where phase cues were unclear or plausibly applicable to both (Table 4). The phase-specific distribution indicates that adoption challenges were most frequently associated with capability, complexity and readiness deficits ($n = 20$; 11 studies) and with ecosystem and infrastructure bottlenecks ($n = 15$; 9 studies), suggesting that early DM uptake is often constrained by skills, usability and enabling conditions. By contrast, continuance challenges were less frequently reported overall ($n = 18$ across 11 studies), but appeared relatively more visible in resource scarcity and opportunity cost ($n = 5$; 5 studies), trust, risk and reputational exposure ($n = 4$; 3 studies), and market constraints and demand uncertainty ($n = 4$; 4 studies), consistent with the proposition that sustained practice may deteriorate when ongoing effort, perceived exposure and unstable returns outweigh perceived benefits. Notably, over half of the extracted challenges were coded as cross-cutting ($n = 82$; 19 studies), reinforcing the observation that many Malaysian studies discuss “barriers” without specifying whether they operate primarily at adoption or during continuance, thereby limiting phase-sensitive explanations of discontinuance and informing the evidence gaps reported under RQ2.

Theme 1 — Resource Scarcity and Opportunity Cost

Resource scarcity—particularly shortages of money, time and manpower—is the most widespread challenge shaping MSMEs' DM behaviour in Malaysia. Financial limitations challenge both initial and ongoing use. MSMEs lack funds for DM (Ainin et al., 2015; Ratnasingam et al., 2021), face high upfront and implementation costs (Enshassi et al., 2025) and must continually allocate funds to recurring costs such as paid advertising for visibility (Cheing et al., 2020; Mokhtar et al., 2016). Additionally, the platform commission fee can be burdensome as it reduces their revenue (Md Faudzi et al., 2024; Othman et al., 2022; 2024). Time and labour constraints further elevate the opportunity cost of DM. Entrepreneurs juggle intensive daily operations such as farm work (Othman et al., 2022), with the expectation of continuous platform monitoring (Othman et al., 2024). Customer demands for instant responses intensify this burden, where delayed replies can lead to lost sales (Cheing et al., 2020). Consequently, MSMEs tend to prioritise immediate operational needs over sustained DM activities, causing DM to compete with, rather than support their limited resources.

Theme 2 — Ecosystem and Infrastructure Bottlenecks

DM in Malaysia is heavily affected by infrastructure issues, particularly poor internet connectivity. Challenges such as slow speeds, unstable coverage and insufficient bandwidth make it difficult for MSMEs to use complex digital platforms (Mokhtar et al., 2016; Othman et al., 2024; Ratnasingam et al., 2021). These problems are most visible in rural areas like Kelantan where inconsistent service from providers remains a major barrier (Mokhtar et al., 2016).

The struggle continues with logistical and supply chain hurdles. Many small business owners face high shipping costs that are often not worth the small volume of orders they receive (Othman et al., 2022). Furthermore, issues such as supply chain delays and delivery drivers' reluctance to travel long distances make it harder for rural traders to compete (Godjali & Supramaniam, 2025; Tajudin et al., 2021). For those selling perishable goods such as chilli traders, the lack of fast, safe delivery is a critical risk (Othman et al., 2022).

Finally, there are structural gaps in training and digital readiness. Studies found that MSMEs are unprepared for the digital shift due to limited digital competence and limited access to training (AlKoliby et al., 2023; Ramli & Razak, 2023). As highlighted by Ashaari et al. (2025), entrepreneurs are more likely to stay digital if they feel the tools are easy to use and within their capabilities. Overall, these findings show that DM success often depends on external factors beyond MSMEs' control.

Theme 3 — Capability, Complexity and Readiness Deficits

A major barrier to long-term success in DM is the gap in an entrepreneur's capabilities (both technical and psychological). Many businesses owners struggle with basic functional tasks such as navigating new applications or promoting products effectively online. More specific challenges such as choosing the right keywords, building a brand and writing engaging marketing content often feel overwhelming (Md Faudzi et al., 2024; Othman et al., 2022). Over time, these difficulties can drain an entrepreneur's confidence, making it much harder to maintain consistency in their digital efforts.

The complexity of certain tools often discourages entrepreneurs who already feel a skills gap. If a system feels too difficult or foreign, many prefer to avoid it altogether. This is often the case with sophisticated platforms like e-commerce or cashless payment systems (Ahmad & Rasheed, 2024; Enshassi et al., 2025).

The mindset “we are not ready yet” is a common psychological hurdle that prevents many from moving forward (Othman et al., 2024). On the other hand, research shows that entrepreneurs are far more likely to adopt and stick with DM when they believe in their own skills and do not feel held back by their age or a lack of technical support (Ashaari et al., 2025; Godjali & Supramaniam, 2025). Ultimately, whether DM becomes a daily routine or remains just a temporary experiment depends on this mix of competence, perceived simplicity and mental readiness.

Theme 4 — Attitudinal Resistance and Strategic Disengagement

Some micro-entrepreneurs choose to de-prioritise DM when it does not align with their business values or goals. A major factor is scepticism over the return on investment (ROI), where many business owners are hesitant to commit because they do not see clear evidence that these tools will lead to actual profits (Enshassi et al., 2025; Hassan et al., 2019). When money is already tight, this doubt makes it even harder for them to justify the expense (Ainin et al., 2015; Tajudin et al., 2021).

Personal independence is also a key factor. Many entrepreneurs take great pride in having full control over their businesses and are often reluctant to use platforms that impose rigid rules or limit their freedom to decide how they operate (Md Faudzi et al., 2024). Furthermore, some businesses struggle with "strategic fragility." This happens when owners "jump on the bandwagon" of new technology without a clear, long-term plan or the support needed to follow through (Godjali & Supramaniam, 2025; Rashid et al., 2021). Without a strategic approach, DM can feel like a temporary experiment rather than a core part of the business (Ratnasingam et al., 2021). Ultimately, this resistance is often a trade-off where the perceived effort of going digital simply does not seem to match the expected value.

Theme 5 — Trust, Risk and Reputational Exposure

Deep-seated concerns about trust remain a major barrier preventing micro-entrepreneurs from consistently using digital channels. Real-world experiences of fraud and non-payment including incidents of delivery personnel absconding with cash have led to blunt declarations such as “I don’t trust the Grab Food” (Md Faudzi et al., 2024). This personal caution reflects a harsh reality: as online fraud increases, so does the perception that digital business is a dangerous venture (Sajilan et al., 2019; Nathan et al., 2019).

This lack of trust is further deepened by growing fears over cybersecurity and privacy. Beyond basic transaction risks (Othman et al., 2022), entrepreneurs now face modern threats such as data breaches, cyberbullying, trolling and social media scams (Wasudawan et al., 2025). The fear of reputational damage is equally paralyzing; as noted by Cheing et al. (2020), “You cannot ignore those comments even though some are quite negative”. The combined pressure of managing misinformation, security risks and public criticism often erode trust thus making it difficult for entrepreneurs to commit to stable and consistent DM practices.

Theme 6 — Market Constraints and Demand Conditions

Market structure and local demand levels greatly influence whether micro-entrepreneurs can sustain their adoption of DM. In semi-rural areas or small, concentrated markets entrepreneurs feel that online promotion is not as necessary due to a limited customer base, tight offline networks and low levels of customer digital engagement (Cheing et al., 2020). In such circumstances, the returns from continued digital efforts appear minimal, leading them to give lower priority to online activities. Demand-side constraints are also evident in digital channels. Low reach such as a low number of customers or social media followers makes attracting customers more challenging (Othman et al., 2024). In addition, external shocks also affect sustainability; for example, education-related businesses reported no direct customers when the sector was completely shut down (Tajudin et al., 2021). These constraints indicate that the sustainability of DM depends not only on skills or infrastructure but also on market fit and perceptions of actual needs. These factors vary according to the micro-entrepreneur context in Malaysia.

Discussion

This review synthesises evidence on challenges shaping the adoption and continuance of DM among Malaysian MSMEs and suggests that discontinuance is often better interpreted as a constrained cost–benefit decision than a simple capability failure. Across the six themes, the synthesis points to a structural effort–return imbalance that shapes whether DM becomes routinised or lapses. On the effort side, entrepreneurs face persistent resource pressures, including limited financial capacity (Ainin et al., 2015), high implementation or operational costs (Enshassi et al., 2025) and substantial time demands associated with maintaining online presence, monitoring activity and managing customer responsiveness (Cheing et al., 2020; Othman et al., 2022; Othman et al., 2024). These pressures are compounded by unstable infrastructure—such as poor connectivity, prolonged service disruptions and insufficient bandwidth to support complex platforms (Mokhtar et al., 2016; Ratnasingam et al., 2021)—and by perceived complexity of tools and systems that raise ongoing learning and execution costs (Ahmad & Rasheed, 2024; Md Faudzi et al., 2024; Enshassi et al., 2025).

On the return side, benefits are often uncertain or unrealised. Several studies report weak or unclear ROI, where digital efforts do not consistently translate into tangible financial outcomes (Enshassi et al., 2025; Hassan et al., 2019). Trust-related concerns including fraud, non-payment incidents, scams, and low perceived online trust further erode willingness to remain active online (Md Faudzi et al., 2024; Sajilan et al., 2019; Nathan et al., 2019). Market constraints amplify these dynamics: limited customer or follower (Othman et al., 2024), semi-rural markets with lower local digital engagement (Cheing et al., 2020) and sectoral disruptions such as school closures (Tajudin et al., 2021) may reduce the payoff of sustained engagement. Taken together, the evidence suggests that post-adoption processes central to continuance—confirmation, satisfaction and routinisation—may be weakened when effort costs remain high and pay-offs remain unpredictable, reframing DM as a behavioural maintenance task rather than a one-off acceptance decision (Davis, 1989; Bhattacharjee, 2001).

Theoretical Implications

The findings extend continuance explanations by positioning environmental friction as a boundary condition shaping sustained DM in MSMEs. While TAM emphasises perceived

usefulness and ease of use (Davis, 1989) and ECM highlights confirmation–satisfaction dynamics (Bhattacharjee, 2001), the Malaysian evidence indicates that post-adoption behaviour is frequently negotiated under persistent constraints recurring cost burdens, infrastructure volatility and trust–risk exposure (Ainin et al., 2015; Ratnasingam et al., 2021; Md Faudzi et al., 2024; Enshassi et al., 2025). In such contexts, favourable perceptions and early satisfaction may be necessary but insufficient for continuance where reliability and safety remain uncertain (Nathan et al., 2019; Sajilan et al., 2019; Md Faudzi et al., 2024). Accordingly, DM continuance is better conceptualised as a behavioural maintenance problem contingent on alignment among capability, perceived value and ecosystem stability, rather than a linear extension of initial adoption (Cheing et al., 2020; Tajudin et al., 2021; Othman et al., 2024). This framing also supports treating discontinuance as economically defensible in the face of persistent misalignment between recurring effort costs and expected returns, rather than as evidence of low motivation or technological resistance.

Practical and Policy Implications

In practice, the synthesis supports a shift from adoption-centric support to continuance-oriented scaffolding. Priority levers include ecosystem stabilisation through more reliable connectivity and reduced routine disruption (Mokhtar et al., 2016; Ratnasingam et al., 2021); mitigation of logistics frictions that weaken fulfilment reliability and returns (Othman et al., 2022; Tajudin et al., 2021; Othman et al., 2024) and stronger cyber-fraud safeguards and accessible dispute resolution to reduce the trust tax that suppresses willingness to persist (Sajilan et al., 2019; Md Faudzi et al., 2024; Wasudawan et al., 2025). Finally, capability support should move beyond one-off literacy towards execution scaffolds—such as low-effort content systems, cost-aware promotion playbooks, and simple analytics decision rules aligned with microenterprise constraints—to make DM more repeatable and less fragile under scarcity (Cheing et al., 2020; Enshassi et al., 2025; Othman et al., 2024). Collectively, these measures target the effort–return imbalance at both firm and ecosystem levels, increasing the likelihood that DM becomes a sustainable routine rather than an episodic experiment.

RQ2: Research Gaps and Implications

To address RQ2, the review identifies four evidence gaps within the Malaysian corpus and derives implications for both future research and the design of continuance-oriented capability support.

Gap 1: Conceptual Ambiguity in Defining “Challenges” Between The Adoption and Continuance Phases

Most studies do not distinguish between DM challenges that arise during the initial adoption and continuance phases. Without this, there is a risk of confusing intention with continued practice. This may weaken researchers’ ability to explain factors associated with discontinuance and routine lapse in DM activities. Therefore, future research could define and operationalise “challenges” using phase-specific definitions and measures, aligning them with continuance mechanisms such as confirmation, satisfaction and routinisation. This approach will allow for clearer attribution of discontinuity and inform the design of more targeted support interventions.

Gap 2: Methodological Dominance of Cross-Sectional Designs Constrains Continuance Explanations

The Malaysian evidence base remains heavily snapshot-based, with cross-sectional designs that support association testing but offer limited insight into how discontinuance unfolds over time under changing platform rules, market signals, and competitive conditions. To strengthen continuance claims, future studies should prioritise longitudinal tracking and process-sensitive approaches (e.g., repeated measures, follow-up designs, and mixed-method sequences) that can capture shifting effort–return evaluations and identify when and why entrepreneurs lapse from routine DM behaviours.

Gap 3: Geographic and Sectoral Concentration Reduces Transferability of Insights

Empirical studies are concentrated in more urbanised regions and common MSME sectors, with limited representation of contexts where infrastructure reliability, local demand conditions and ecosystem frictions may differ materially. This concentration constrains the transferability of findings and risks overstating the generality of adoption and continuance challenges across Malaysia. Future work should broaden sampling beyond dominant geographies and conduct sector-sensitive comparisons, improving external validity and enabling more context-segmented policy instruments and capability programmes.

Gap 4: Adoption-Centric Theorising Outweighs Continuance Lenses in Explaining Sustained Behaviour

A substantial portion of Malaysian studies foregrounds acceptance and intention constructs, while continuance and discontinuance dynamics particularly post-use evaluation, habit formation and environmental friction are less consistently modelled. This imbalance limits the explanatory power of the literature for sustained practice, especially where ongoing content production and customer engagement are required. Malaysian research would benefit from stronger integration of continuance-oriented frameworks and behavioural maintenance perspectives to explain how DM becomes routinised or abandoned over time.

Overall Implications for Intervention and Policy Design.

Taken together, these gaps suggest that capability programmes should move beyond one-off skill transfer towards maintenance scaffolds that reduce effort–return imbalance and stabilise routine execution. Practically, this implies combining capability development with supports that mitigate environmental friction (e.g., time scarcity, cost burden, connectivity volatility, and trust–risk exposure), alongside design features that help MSMEs routinise DM behaviours (e.g., simplified content systems, cue-based routines, feedback loops, and context-segmented expectations). In closing RQ2, the Malaysian evidence base remains stronger in describing adoption-associated constraints than in explaining continuance and discontinuance as behavioural processes shaped by post-use evaluation and environmental friction. Strengthening phase-specific construct definitions, adopting process-sensitive designs, broadening contextual coverage and rebalancing theorising towards continuance would provide a firmer foundation for policies and programmes that support repeatable, low-friction DM routines rather than episodic platform use.

Limitations and Recommendations for Future Research

This review is limited by its reliance on secondary evidence from published studies which may not fully capture recent shifts in platform features, algorithms or consumer behaviour. The evidence base may also be incomplete because several potentially relevant full texts were not retrievable due to paywalls and access restrictions. In addition, the predominance of cross-sectional designs limits the ability to examine discontinuance as an evolving process over time and to draw causal inferences. Future research could therefore prioritise longitudinal and mixed - method designs that track micro-entrepreneurs over time to empirically examine the proposed Calculus of Discontinuance and to assess whether changes in ecosystem conditions such as improved connectivity and strengthened cybersecurity safeguards are associated with more stable continuance trajectories. Finally, coding and phase-tagging were conducted by a single primary reviewer with spot-checking which may not fully eliminate subjective judgement in theme boundaries and phase assignments.

Conclusion

This SLR indicates that MSMEs' discontinuation of DM in Malaysia reflects a complex interplay among resource constraints, ecosystem instability and trust-related exposure. The evidence suggests that discontinuance may be a rational response when perceived effort outweighs perceived value, rather than a straightforward lack of access. Supporting more consistent practice, therefore, requires reducing structural frictions that make DM appear high-risk yet low-return and strengthening strategic capabilities alongside technical skills. The review also highlights evidence gaps, particularly around continuance-focused constructs, longitudinal designs and contextual diversity, that future Malaysian research should address to inform more effective continuance-oriented support.

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Appendix A. Theme-Level Codebook

Theme	Operational definition	Inclusion cues	Example challenge statement
Resource scarcity and opportunity cost	Constraints arising from limited financial, time, or labour capacity that restrict starting or sustaining DM activities.	Cost/budget/cashflow; time pressure/workload; lack of staff; inability to sustain posting/monitoring due to competing operational demands.	“Workload and limited capacity make consistent content posting and customer response difficult.”
Ecosystem and infrastructure bottlenecks	External enabling conditions that hinder DM, including connectivity, service reliability, logistics, and support access.	Poor/unstable internet; service disruption; infrastructure limitations; delivery/logistics barriers; limited access to enabling support/training.	“Unstable connectivity and infrastructure disruptions interrupt routine DM activities.”
Capability, complexity, and readiness deficits	Skills, confidence, and perceived tool complexity that limit effective execution of DM tasks.	Low digital/marketing skills; difficulty producing content/using platform features; complexity/usability issues; low confidence/readiness to use digital tools.	“Limited skills and perceived platform complexity reduce entrepreneurs’ ability to execute DM effectively.”
Attitudinal resistance and strategic disengagement	Low perceived usefulness/ROI, misalignment with business priorities, or deliberate deprioritisation that reduces commitment to DM.	ROI scepticism; “not worth it”; preference for offline channels; inconsistent commitment; DM viewed as non-essential or low priority.	“DM is deprioritised when perceived returns are uncertain or not immediate.”
Trust, risk, and reputational exposure	Perceived or experienced risks that discourage digital engagement, including fraud, privacy/security concerns, and reputational harm.	Scams/non-payment; privacy/security worries; fear of negative reviews/comments; reluctance to transact online due to perceived vulnerability.	“Concerns about fraud and reputational harm discourage sustained online engagement.”
Market constraints and demand uncertainty	Limits arising from customer demand, market readiness, reach/visibility, channel–product fit, or demand volatility that reduce the value of sustained DM.	Low demand/low customer digital engagement; low reach/visibility; weak conversion; demand volatility/shocks; poor channel–product fit.	“Limited reach and uncertain demand reduce the incentive to continue DM.”

Appendix B. Quality Appraisal Checklist And Study-Level Scores

Table B1. Quality appraisal criteria (adapted from Abouzahra et al., 2020)

Code	Criterion
QA1	Clarity of the research purpose regarding digital marketing adoption/continuance
QA2	Adequacy of the SME/microenterprise context definition
QA3	Transparency of sampling and data collection methods
QA4	Clarity of challenge/discontinuance constructs
QA5	Rigour of the data analysis approach
QA6	Explicit acknowledgement of study limitations

Note. Each criterion was scored using a ternary scale (Yes = 1, Partly = 0.5, No = 0). Maximum total score per study = 6.

Table B2. Study-level quality appraisal results (QA1–QA6)

Study ID	QA1	QA2	QA3	QA4	QA5	QA6	Total	Rank
Ahmad and Rasheed (2024)	1	1	1	1	1	0	5	H
Ainin et al. (2015)	1	1	1	0	1	1	5	H
Ali Abbasi et al. (2022)	1	1	1	1	1	0	5	H
AlKoliby et al. (2023)	1	1	1	0	1	0	4	M
Ashaari et al. (2025)	1	1	0.5	0.5	0.5	0	3.5	M
Cheing et al. (2020)	1	1	1	0	1	1	5	H
Enshassi et al. (2025)	1	1	1	1	1	0	5	H
Godjali and Supramaniam (2025)	1	1	1	1	1	0	5	H
Hashim et al. (2024)	1	1	1	0	1	1	5	H
Hassan et al. (2019)	1	1	1	0	1	1	5	H
Md Faudzi et al. (2024)	1	1	1	1	1	0.5	5.5	H
Mokhtar et al. (2016)	1	1	1	1	1	1	6	H
Nathan et al. (2019)	1	1	1	1	1	1	6	H
Othman et al. (2022)	1	1	1	1	0.5	0	4.5	M
Othman et al. (2024)	1	1	1	1	0.5	0.5	5	H
Ramli and Razak (2023)	1	0.5	1	0	1	1	4.5	M
Rashid et al. (2021)	1	1	1	0	0.5	1	4.5	M
Ratnasingam et al. (2021)	1	1	1	1	1	1	6	H
Sajilan et al. (2019)	1	1	1	0	1	0	4	M
Samat et al. (2024)	1	1	1	0	1	0	4	M
Tajudin et al. (2021)	1	1	1	1	1	0	5	H
Wasudawan et al. (2025)	1	1	1	1	1	1	6	H