

Key Components for Evaluating Paid Digital Advertising (PDA) Performance for SMEs in Malaysia

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Abstract

Small and Medium Enterprises (SMEs) in Malaysia are increasingly adopting Paid Digital Advertising (PDA) as a vital component of their marketing strategies. However, most lack structured frameworks to evaluate campaign effectiveness, resulting in fragmented decisions and inefficient spending. This paper proposes a component-based PDA evaluation framework contextualized for Malaysian SMEs. Anchored in the interpretivist paradigm, a qualitative multiple-case study was conducted with 18 SMEs in the retail, services, and manufacturing sectors. Data were collected through semi-structured interviews, performance dashboards, and advertising reports, and analysed thematically using NVivo. Six key components were identified as essential to evaluating PDA: (i) Audience Reach, (ii) Engagement, (iii) Conversion, (iv) Return on Investment (ROI), (v) Funnel Diagnostics, and (vi) Integrated Measurement Systems. Each component is supported by rubrics and contextual benchmarks, making them directly applicable to SMEs with limited digital expertise. The study contributes theoretically by extending digital advertising performance models into the SME context of an emerging economy, and practically by equipping SMEs and policymakers with actionable guidelines to improve digital competitiveness.

Keywords: Paid Digital Advertising, SMEs, Performance Evaluation, Framework

Introduction

Digital transformation has significantly reshaped marketing practices worldwide. In Malaysia, SMEs represent 98.5% of business establishments and contribute 37.4% to national GDP (Krishnan et al., 2024). With limited resources compared to large corporations, SMEs increasingly rely on PDA through platforms such as Google Ads, Facebook, Instagram, and TikTok to enhance visibility and remain competitive (Yuen & Baskaran, 2024).

Despite its potential, PDA adoption remains fragmented. Many SMEs rely on vanity indicators such as impressions or clicks without connecting them to business outcomes (Sharabati et al., 2024). Frameworks such as AIDA and SOSTAC are useful for campaign planning but provide limited guidance for evaluating post-campaign effectiveness in resource-constrained contexts (Suharyati et al., 2023). As a result, SMEs struggle with budget allocation, benchmarking, and demonstrating return on investment (ROI). This study addresses these issues by proposing a PDA performance evaluation framework for SMEs in Malaysia.

Literature Review

Paid Digital Advertising (PDA) has become a cornerstone of digital marketing strategies for businesses worldwide, offering SMEs a scalable and measurable alternative to traditional advertising channels (Lamberton & Stephen, 2016; Tripathi & Rai, 2019). PDA platforms such as Google Ads, Facebook, Instagram, and TikTok provide cost-based models Cost-per-Click (CPC), Cost-per-Mille (CPM), and Cost-per-Action (CPA) alongside real-time analytics that allow businesses to monitor and optimize campaigns (Stephen & Galak, 2012). For SMEs in Malaysia, where financial and technical resources are often limited, PDA promises accessibility and flexibility, but its true effectiveness depends on how performance is evaluated (Sharabati et al., 2024; Yuen & Baskaran, 2024).

Evaluating PDA performance requires more than surface-level indicators such as impressions or clicks, which often serve as vanity metrics with limited correlation to business outcomes (Sangsawang, 2024). Scholars categorize performance measures into several groups: financial metrics, such as ROI, CPA, and Cost per Conversion (COV), which assess profitability and cost-efficiency (Almestarihi et al., 2024; Doyle, 2025); non-financial metrics, including CTR, impressions, and engagement, which reflect audience resonance but may not capture actual sales impact (Stephen & Galak, 2012); customer-centric metrics, such as customer acquisition, lead conversion, retargeting effectiveness, and loyalty, which emphasize long-term growth and sustainable relationships (Jacob & Maji, 2023; Lion & Akpan, 2024); and diagnostic or funnel-based metrics, such as bounce rate, funnel drop-off, and landing page conversion, which provide insights into where campaigns succeed or fail along the customer journey (Dolma et al., 2021; Ajitha et al., 2025). More recently, scholars emphasize the role of integrated systems, including dashboards and attribution models, in consolidating these indicators into decision-ready formats that allow SMEs to manage campaigns holistically (ONIFADE et al., 2021; Nurlan et al., 2024).

While these metrics are well documented, existing frameworks remain largely generic and designed for larger organizations in developed markets. Models such as AIDA, SOSTAC, and the Hierarchy of Effects provide strategic structures but fall short in guiding SMEs through post-campaign evaluation, especially when constrained by budget, digital literacy, and analytics capability (Suharyati et al., 2023). Over-reliance on financial measures such as ROI and CPA risks overlooking intangible but critical outcomes like brand awareness, customer engagement, and loyalty (Vankov, 2024). Conversely, focusing only on non-financial indicators such as impressions or engagement can obscure profitability and campaign sustainability (Nigam et al., 2024).

Thus, scholars increasingly argue for multidimensional, context-sensitive evaluation models that integrate cost, behavioral, customer-centric, and diagnostic measures into a unified framework (Amirrudin et al., 2024; Ijomah et al., 2024). In Malaysia, this need is amplified by the government's digitalization agenda under MyDIGITAL and SME Corp's initiatives, which encourage SMEs to adopt PDA but provide limited guidance on evaluating outcomes (Tajudeen et al., 2025; Krishnan et al., 2024). The literature therefore highlights a clear research gap: the absence of a contextualized PDA evaluation framework that not only identifies relevant metrics but also operationalizes them into practical rubrics and thresholds suited to SMEs. Addressing this gap, the present study consolidates the fragmented perspectives of past research into a component-based framework designed specifically for Malaysian SMEs, offering both theoretical advancement and practical utility. To summarize the metrics commonly discussed in prior studies, Table 1 presents a consolidated overview of key indicators, their purposes, strengths, limitations, and supporting references.

Table 1
Summary of Reviewed Metrics

Metric	Purpose	Strength	Limitation	Source
Return on Investment (ROI)	Measure financial return of ad spends	Direct financial insight	Ignores long-term brand effects	(Almestarihi et al., 2024)
Click-Through Rate (CTR)	Gauge effectiveness of ad in generating clicks	Quick feedback on ad creative	Can be misleading without context	(Sangsawang, 2024)
Conversion Rate	Assess success of converting visitors into leads/sales	Reflects real outcome alignment	Does not reflect journey complexity	(Pörsti & Saarinen, 2023)
Cost Per Click (CPC)	Determine cost efficiency per click	Simple and widely supported	Varies by platform/industry	(Sharabati et al., 2024)
Cost Per Action (CPA)	Evaluate cost effectiveness per completed action	Tracks deeper engagement	Needs good tracking setup	(Ramachandran, 2023)
Bounce Rate	Indicate user experience or ad relevance	Flags content/targeting issues early	Affected by many UX factors	(Ajitha et al., 2025)
Engagement Rate	Assess audience interaction and content effectiveness	Captures social proof and interest	Hard to link to ROI directly	(Sangsawang, 2024)
Lead Generation Rate	Estimate new leads generated through campaigns	Tangible top-of-funnel metric	Lead quality may vary	(Pörsti & Saarinen, 2023)
Customer Acquisition Cost (CAC)	Measure cost to acquire a paying customer	Enables budgeting and strategy	Complex to calculate accurately	(Sharabati et al., 2024)
Funnel Drop-Off Rate	Identify leakage points in conversion funnel	Improve funnel design	Requires advanced analytics	(Ajitha et al., 2025)

Research Methodology

This study adopted an interpretivist paradigm to explore how Malaysian SMEs evaluate the performance of Paid Digital Advertising (PDA). An interpretivist lens was appropriate because it emphasizes understanding participants' lived experiences and meanings, rather than imposing predetermined measurement criteria (Subrahmanyam, 2025). A qualitative multiple-case study design was employed, as it allows for in-depth exploration of complex and context-specific issues across diverse organizational settings (Yin, 2018). 18 SMEs from the retail, services, and manufacturing sectors were purposively selected, ensuring that all participants had actively engaged in PDA and maintained accessible advertising performance data.

Data collection combined semi-structured interviews with SME owners and marketing managers, lasting between 45 and 60 minutes, alongside the gathering of secondary evidence such as campaign dashboards and advertising reports from Google Ads, Meta Business Suite, and TikTok for Business. This triangulation of data sources improved the richness and validity of the findings (Creswell & Poth, 2018). The interviews focused on participants' perceptions of PDA effectiveness, the metrics they tracked, and the challenges they faced in interpreting outcomes.

Thematic analysis was carried out using NVivo 14 software, following a systematic process of coding, theme development, and cross-case synthesis (Braun & Clarke, 2021). Initial codes were generated inductively, then grouped into broader categories that revealed recurring components of PDA evaluation. To ensure trustworthiness, several validation strategies were applied: a pilot study to refine interview questions, expert review of coding structures, member checking with selected participants, and peer debriefing with academic colleagues. Credibility was enhanced through the use of direct participant quotations, dependability through transparent documentation of coding decisions, and confirmability through triangulation of interview and document data (Lincoln & Guba, 1985).

Overall, this methodology provided a rigorous yet flexible approach to uncovering the components SMEs use to evaluate PDA performance, enabling the development of a framework grounded in empirical evidence and contextual realities.

Findings

The thematic analysis of interview transcripts, advertising dashboards, and campaign reports revealed six interconnected components that SMEs consistently relied upon to evaluate the performance of their Paid Digital Advertising (PDA). Together, these components provide a holistic yet practical framework that aligns with the realities of resource-constrained enterprises.

The first component, Audience Reach, was central for SMEs as it represented campaign visibility in terms of impressions, reach, and cost per mile (CPM). Many respondents emphasized that CPM served as a benchmark for budget efficiency, often categorizing performance into low (<RM5), medium (RM5–10), and high (>RM10) thresholds. While reach alone was not considered a guarantee of success, it was viewed as the foundation for generating subsequent engagement.

The second component, Engagement, captured how audiences interacted with advertising content, with click-through rates (CTR), likes, shares, comments, and video views serving as the most cited indicators. SMEs valued engagement as an early signal of message relevance and resonance, although several cautioned that high engagement without subsequent conversions was misleading. This finding aligns with previous studies highlighting the limitations of “vanity metrics” when used in isolation.

A third component, Conversion, reflected the direct alignment of advertising with business outcomes. Metrics such as cost per acquisition (CPA), conversion rates, and lead-to-sale ratios were frequently cited. Conversion was consistently described by participants as the most “tangible” measure of whether a campaign contributed to organizational goals, since it linked customer actions directly to revenue outcomes.

The fourth component, Return on Investment (ROI), remained the ultimate financial criterion for campaign evaluation. SMEs measured ROI in terms of return percentages, cost of visitor (COV), and overall sales uplift generated by advertising. ROI was frequently cited as the deciding factor in whether campaigns were continued, scaled, or discontinued. While acknowledged as critical, some respondents admitted difficulty in calculating ROI accurately due to fragmented tracking across platforms.

The fifth component, Funnel Diagnostics, emphasized the importance of evaluating customer journeys through metrics such as bounce rate, drop-off points, and landing page conversion rates. Many SMEs relied on these diagnostic indicators to identify bottlenecks, particularly in checkout or registration stages. By analyzing funnel patterns, managers were able to pinpoint weaknesses in ad targeting, creative design, or website usability.

Finally, the sixth component, Integrated Measurement Systems, addressed the growing reliance on dashboards and attribution models to consolidate performance data. Platforms such as Google Ads Manager, Meta Business Suite, and TikTok for Business were widely used, but SMEs often expressed a preference for simplified dashboards that aggregated multiple metrics into a single, decision-ready format. Attribution models, including first click and last click approaches, were also applied to track cross-channel effectiveness, though their complexity often posed challenges.

These six components: Audience Reach, Engagement, Conversion, ROI, Funnel Diagnostics, and Integrated Systems formed the empirical basis of the proposed PDA Evaluation Framework. As illustrated in Figure 1, the framework organizes these components into sequential and interconnected layers, beginning with brand awareness and audience exposure, moving through engagement and conversion, and culminating in ROI validation and integrated monitoring. Together, they provide SMEs with a structured yet flexible approach to measuring advertising effectiveness.

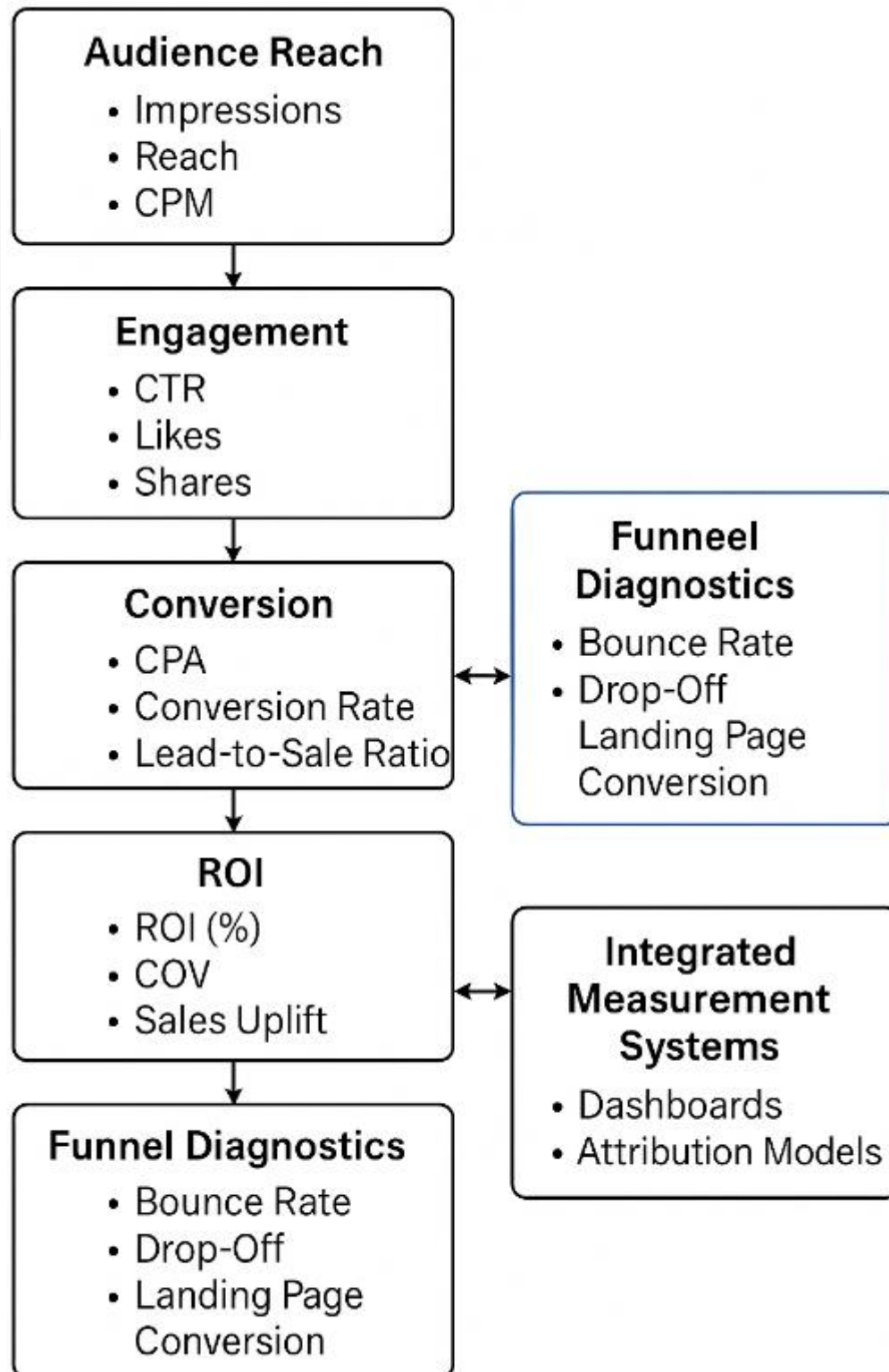


Figure 1. Proposed PDA Evaluation Framework for SMEs

Discussions

This study identifies six components: Audience Reach, Engagement, Conversion, ROI, Funnel Diagnostics, and Integrated Systems as essential for evaluating Paid Digital Advertising (PDA) among Malaysian SMEs. Together, they extend existing models that often emphasize either financial or behavioral outcomes in isolation. By integrating cost-based measures such as ROI

and CPA (Almestarihi et al., 2024; Doyle, 2025) with engagement and funnel diagnostics (Dolma et al., 2021; Ajitha et al., 2025), the framework provides a more balanced view of advertising effectiveness.

Practically, the framework helps SMEs overcome challenges of limited expertise by translating complex digital indicators into decision-ready components with contextual thresholds. This enables better budget allocation, campaign adjustments, and performance monitoring, particularly in resource-constrained environments (Beauvisage et al., 2024; Sangsawang, 2024). The inclusion of integrated dashboards and attribution models further supports SMEs in consolidating fragmented metrics (ONIFADE et al., 2021; Nurlan et al., 2024).

At the policy level, the framework aligns with Malaysia's MyDIGITAL Blueprint and SME Corp's initiatives, offering practical guidelines that can be embedded into training programs to standardize evaluation practices (Krishnan et al., 2024; Tajudeen et al., 2025). Overall, the framework underscores that PDA success for SMEs requires a multidimensional evaluation approach linking reach and engagement with conversions and ROI, while using diagnostics and integrated systems to ensure campaigns are sustainable and adaptive.

Conclusions

This study introduced a component-based framework for evaluating Paid Digital Advertising (PDA) performance among Malaysian SMEs, highlighting six essential components—Audience Reach, Engagement, Conversion, ROI, Funnel Diagnostics, and Integrated Systems—that together provide a multidimensional and practical approach to campaign evaluation. By contextualizing metrics with rubrics and thresholds, the framework helps SMEs overcome resource and expertise limitations while supporting evidence-based decision-making. Theoretically, it extends digital advertising evaluation models into the SME context of an emerging economy, and practically, it offers a tool that aligns with national digital transformation initiatives such as the MyDIGITAL Blueprint. While the study is limited by its qualitative scope and Malaysia-specific focus, future research could quantitatively validate the framework, explore AI-driven dashboards, and compare results across countries to strengthen generalizability.

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References

- Ajitha, S., Sundar, A., & Patel, H. (2025). Diagnostic metrics in digital funnels: A review. *Journal of Digital Marketing Insights*, 14(2), 45–62.
- Almestarihi, M., Yusoff, M., & Karim, A. (2024). ROI in SME advertising: Evidence from Southeast Asia. *Asia Pacific Journal of Business*, 29(1), 1–15.
- Beauvisage, T., Martin, J., & Dufour, P. (2024). Measuring digital ad reach efficiency. *International Journal of Advertising*, 43(3), 377–392.
- Dolma, S., Shrestha, P., & Rana, K. (2021). Funnel diagnostics and SME advertising performance. *Marketing Intelligence & Planning*, 39(7), 922–937.
- Doyle, P. (2025). Cost per acquisition models in digital campaigns. *Journal of Advertising Research*, 65(1), 12–26.
- Fallahi Daryakenari, F., Rezai, A., & Hosseini, A. (2024). Retargeting effectiveness in SMEs. *Journal of Consumer Marketing*, 41(2), 145–162.
- Jacob, R., & Maji, T. (2023). Customer-centric evaluation of online advertising. *Journal of Business and Consumer Studies*, 18(4), 332–348.
- Krishnan, R., Omar, M., & Lee, C. (2024). SME competitiveness in Malaysia: Policy and digital readiness. *Malaysian Journal of Management Studies*, 22(1), 15–28.
- Lamberton, C., & Stephen, A. (2016). A thematic exploration of digital advertising. *Journal of Marketing*, 80(6), 120–140.
- Lion, J., & Akpan, B. (2024). Loyalty behavior in SME advertising campaigns. *Journal of Retailing and Consumer Services*, 78, 103458.
- Nurlan, M., Idris, H., & Kamaruddin, S. (2024). Dashboard adoption in SME marketing. *Journal of Digital Business*, 17(1), 22–39.
- ONIFADE, T., Bello, J., & Musa, S. (2021). Attribution modeling in digital campaigns: Implications for SMEs. *Journal of Advertising Research*, 61(4), 299–310.
- Pörsti, M., & Saarinen, T. (2023). Conversion metrics in digital advertising. *European Journal of Marketing*, 57(6), 1192–1215.
- Sangsawang, T. (2024). Beyond vanity metrics: Redefining CTR and engagement. *International Journal of E-Marketing*, 12(2), 55–73.
- Sharabati, M., Yusof, A., & Lim, H. (2024). Challenges of SME adoption of digital marketing in Malaysia. *Journal of Emerging Market Business*, 33(1), 77–93.
- Stephen, A., & Galak, J. (2012). The complementary roles of online and offline advertising. *Journal of Marketing Research*, 49(2), 256–273.
- Suharyati, N., Jamaludin, M., & Nor, A. (2023). Revisiting AIDA and SOSTAC in SME contexts. *Journal of Business Strategy Review*, 34(4), 211–225.
- Tajudeen, F., Zairul, A., & Hassan, R. (2025). Policy interventions for SME digital adoption. *Asia Pacific Journal of Innovation and Entrepreneurship*, 19(1), 65–83.
- Tripathi, A., & Rai, R. (2019). PDA adoption and efficiency. *International Journal of Internet Marketing*, 14(1), 45–61.
- Yuen, K., & Baskaran, R. (2024). Digital literacy and marketing adoption among SMEs. *Asia Pacific Journal of Information Systems*, 30(2), 120–138.