

Una campaña de marketing emprendedor en una empresa tecnológica: estudio de caso longitudinal de MetricSci*

An entrepreneurial marketing campaign in a technology firm: a longitudinal case study of MetricSci

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Abstract

Purpose: This study analyzes the design, implementation, and observed early responses of a sequential entrepreneurial marketing campaign conducted at MetricSci, a Colombian technology-based knowledge-intensive services firm. **Method:** An applied, instrumental, longitudinal single-case study was conducted. The 56-day campaign comprised four 14-day phases: social media/content, word-of-mouth (WoM), networking, and a Mix phase. Daily exposure and response records were analyzed together with a log of 29 events containing sending and reply dates. Blank cells were treated as missing information rather than as non-occurrence. **Results:** The WoM phase recorded 350 invitations and 7 leads (2.00%). The networking phase recorded 417 contacts, 16 leads (3.84%), and 2 one-to-one meetings (0.48%). During the Mix phase, 329 networking contacts and 6 leads (1.82%) were recorded; social media activity was concentrated in the last two days. Mean response lag was 3.28 days, with a median of 1 and a range of 0–17. No data were recorded for demonstrations, quotations, orders, time, or expenditure; therefore, no commercial effect or impact was estimated. **Conclusions:** The case demonstrates the feasibility of sequencing relational mechanisms and tracing proximal responses, but it does not support causal comparisons between phases. Its main contribution is to distinguish entrepreneurial marketing orientation, relational mechanisms, and enabling tactics, while proposing a minimum measurement architecture for future campaigns.

Keywords: entrepreneurial marketing; word-of-mouth; networking; technology SMEs; longitudinal case study; business campaign.

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Resumen

Propósito: Este estudio analiza el diseño, la implementación y las respuestas tempranas observadas de una campaña secuencial de marketing emprendedor realizada en MetricSci, una empresa colombiana de servicios tecnológicos intensivos en conocimiento. **Método:** Se desarrolló un estudio de caso único, aplicado, instrumental y longitudinal. La campaña de 56 días comprendió cuatro fases de 14 días: redes sociales/contenido, voz a voz (WoM), networking y una fase mixta. Se analizaron registros diarios de exposición y respuesta, junto con una bitácora de 29 eventos que contenía fechas de envío y respuesta. Las celdas vacías se trataron como información faltante y no como ausencia del evento. **Resultados:** La fase WoM registró 350 invitaciones y 7 leads (2,00 %). La fase de networking registró 417 contactos, 16 leads (3,84 %) y 2 reuniones individuales (0,48 %). En la fase mixta se registraron 329 contactos de networking y 6 leads (1,82 %); la actividad en redes sociales se concentró en los dos últimos días. El rezago medio de respuesta fue de 3,28 días, con mediana de 1 y rango de 0 a 17. No se registraron demostraciones, cotizaciones, pedidos, tiempo ni gasto; por tanto, no se estimó efecto comercial ni impacto. **Conclusiones:** El caso demuestra la viabilidad de secuenciar mecanismos relacionales y rastrear respuestas proximales, pero no permite comparaciones causales entre fases. Su principal aporte consiste en distinguir la orientación de marketing emprendedor, los mecanismos relacionales y las tácticas habilitadoras, y en proponer una arquitectura mínima de medición para campañas futuras.

Palabras clave: marketing emprendedor; voz a voz; networking; pymes tecnológicas; estudio de caso longitudinal; campaña comercial.

1. Introduction

Entrepreneurial marketing (EM) has become an interface field between marketing and entrepreneurship that explains how organizations identify and exploit opportunities, create value, manage risk, and mobilize resources under conditions of uncertainty. Its development responded, in part, to the limitations of overly predictive marketing approaches when firms face dynamic markets and persistent constraints on capital, time, attention, and legitimacy. Morris et al. [1] proposed an integrative construct emphasizing opportunity focus, proactiveness, innovation, resource leveraging, customer intensity, value creation, and risk management. Subsequently, Eggers et al. [2] validated a scale comprising three correlated dimensions—change-driving, bootstrapping, and risk-taking—and demonstrated their positive relationship with firm performance.

The relationship between EM and performance has also been supported by review studies and empirical research. Alqahtani and Uslay [3] conceptualize EM as a construct linking orientations and practices to organizational outcomes, whereas Ouragini and Lakhal [4] identify positive associations between several EM dimensions and performance. Foundational and review work also shows that EM evolved as a distinct response to uncertainty and that SME marketing is embedded in customer engagement, innovation, networks, and constrained organizational contexts [5]–[7]. However, this literature operates primarily at the level of organizational orientation, capability, or behavior. A translation problem persists in day-to-day management: knowing that an entrepreneurial orientation is

valuable does not specify which intervention to implement, for how long, in what sequence, for which audience, or through which indicators the firm should learn.

This problem is especially relevant in knowledge-intensive technology firms. Their offerings usually require explanation, trust, and access to decision-makers, while customer-acquisition resources are limited. Prior research shows that technology can extend the communication reach of entrepreneurial firms and that social-network use in SMEs depends on strategic orientation and organizational capabilities [8], [9]. In these contexts, interpersonal recommendations, contact networks, and digital content can provide legitimacy, access, and learning. Nevertheless, WoM and networking operate mainly as relational mechanisms, whereas social media and content operate primarily as tactics and channels that generate visibility and reusable materials.

The literature provides foundations for each component, but their integration into a time-bounded unit remains underspecified. WoM programs require explicit decisions about audiences, timing, incentives, reach, and generated value [10], while B2B research calls for greater clarity regarding the generation, transmission, and effects of WoM [11]. Networking helps SMEs mobilize resources and develop marketing capabilities [12], [13], and software referral campaigns show that adoption depends on network and relationship characteristics rather than contact volume alone [14]. Network-based entrepreneurship research also emphasizes relationship content, structure, and evolution, including their role in technology firms' opportunity development [15], [16]. These contributions justify examining how each tactic is configured, measured, and connected to specific funnel stages.

This article uses the term entrepreneurial marketing campaign (EMC) as a working definition: a time-bounded, sequential, and measurable intervention through which a firm configures frugal tactics and relational mechanisms to generate learning and commercial responses under constraints. This definition is not presented as a definitively validated construct, but as a meso-analytical unit linking EM orientation to observable actions. By positioning the campaign between strategic orientation and outcomes, it becomes possible to distinguish principles, tactics, mechanisms, proximal responses, and commercial outcomes.

The case analyzed is MetricSci, a Colombian firm that provides technology services related to scientometrics, bibliometric analysis, and scientific information visualization. In 2026, the organization implemented a 56-day sequence involving social media/content, WoM, networking, and a combined phase. The available record preserves exposure, lead, meeting, and lag metrics, but contains no data in the fields for demos, quotations, orders, time, or expenditure. This condition requires reframing the study's claim: the article does not seek to demonstrate impact or causality, but to reconstruct the intervention and analyze the early responses actually observed.

Research question. How was a sequential entrepreneurial marketing campaign based on social media/content, WoM, and networking designed and implemented, and what early responses were observed in MetricSci's commercial funnel across its four phases?

Objective. To analyze the campaign's design, implementation, and observed early responses by phase, identifying plausible mechanisms, measurement constraints, and transferable lessons for knowledge-intensive technology SMEs.

The article offers three contributions proportionate to the evidence. Conceptually, it proposes a hierarchy that separates EM orientation, enabling tactics, relational mechanisms, and outcomes. Methodologically, it shows how a daily log can connect exposure, response, and lag, while also demonstrating why blank cells, the absence of a baseline, and unrecorded commercial outcomes preclude causal inference. Managerially, it derives a minimum measurement architecture so that future campaigns can link leads and meetings to demos, quotations, orders, and resources.

Conceptual framework

Entrepreneurial marketing: orientation and principles of action

EM is not equivalent to a collection of digital tactics or a scaled-down version of conventional marketing. It refers to an organizational logic oriented toward creating and exploiting opportunities through innovative, proactive, and resource-sensitive decisions. Morris et al. [1] integrate this logic through seven dimensions, whereas Eggers et al. [2] empirically identify three components: change-driving, bootstrapping, and risk-taking. The first describes a willingness to drive change and build opportunities; the second, the creative mobilization of controlled or accessible resources; and the third, the acceptance of calculated bets.

These dimensions operate at the orientation level and should not be confused with WoM, networking, or social media. A firm may, for example, use a social platform routinely without that activity being entrepreneurial. Its EM character derives from how the action is designed: whether it creates opportunities, recombines resources, limits possible loss, learns rapidly, and adapts the offering. This distinction avoids attributing entrepreneurial character to the channel and makes it possible to examine the coherence between principles and execution.

The entrepreneurial marketing campaign as a meso-analytical unit

EM orientation is relatively stable, whereas a campaign is temporary and operational. In this study, an EMC is conceived as a bounded configuration of objectives, audiences, tactics, mechanisms, dosage, and metrics. This meso-analytical unit makes it possible to observe how EM principles are translated into concrete decisions and how those decisions produce proximal signals in the funnel. Its value lies in making the sequence auditable: what was done, to whom, when, at what intensity, and what happened afterward.

The definition also imposes measurement conditions. A campaign cannot be evaluated solely through reach or engagement; exposure, mechanism, and outcome must be distinguished. Invitations and contacts represent exposure; leads, replies, and meetings are

proximal outcomes; demos, quotations, and orders describe progression and closure; time and expenditure enable efficiency estimates. If these levels are conflated, the organization may mistake activity for performance.

Social media and content marketing as enabling tactics

Social media encompasses digital applications that facilitate the creation and exchange of user-generated content [17]. Content marketing organizes the creation and management of useful content to attract, inform, and engage audiences [18]. In small B2B firms, social media can support market knowledge, relationship building, information communication, and the coordination of efforts across channels, although performance effects depend on strategic and organizational capabilities [9], [19]–[21].

Within the proposed model, these actions are considered enabling tactics. Their immediate function is to produce visibility, familiarity, and evidence of expertise that can be reused in a recommendation or networking conversation. Therefore, impressions, views, clicks, or interactions are not interpreted as sales or evidence of impact. They are signals of exposure and engagement that may prepare a subsequent relational interaction.

Word-of-mouth as a recommendation and trust mechanism

WoM encompasses interpersonal communications about products or services in which the recipient perceives the sender as relatively independent of the firm. In entrepreneurial contexts, recommendations can reduce uncertainty and search costs and bring the offering closer to people who trust the referrer. Stokes et al. [22] showed that a small firm can deliberately manage its WoM, while Haenlein and Libai [10] distinguished seeding, referral, and recommendation programs and noted that their design requires specific managerial decisions.

In knowledge-intensive B2B services, this mechanism is relevant because buyers assess credibility, risk, and fit before committing resources. However, counting invitations and leads is not equivalent to measuring viral diffusion. A lead-per-invitation rate is a descriptive response conversion. Estimating a reproduction factor or WoM cascade would require referrer and referred-person identifiers, transmission generations, and attribution rules. This precision is central to interpreting the MetricSci case.

Networking as a mechanism of access and learning

Networking refers to building and managing relationships with relevant actors. Recent entrepreneurial marketing research links networking with effectuation and WoM, positioning relationships as a mechanism for mobilizing means, opportunities, and market communication under uncertainty [23]. Network theory further highlights how ties can transmit information and bridge otherwise separated groups [24]. In SMEs, relationships facilitate access to knowledge, reputation, resources, and commercial opportunities. Gilmore et al. [12] documented their contribution to marketing activity, and Gliga and

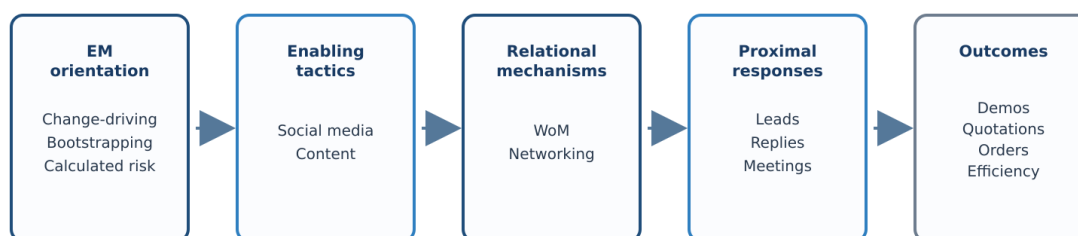
Evers [13] showed that entrepreneurial networking contributes to specialized, cross-functional, and dynamic capabilities.

Within a campaign, networking can perform a dual function. Commercially, it opens access to decision-makers or connectors who are difficult to reach through impersonal communication. Cognitively, it produces information about needs, objections, and offering fit. Its expected proximal outcomes therefore lie in the middle of the funnel—replies, meetings, presentations, and demos—before quotations or orders are reached. Relationship quality also matters: Eggers et al. [14] found that adoption in software referral campaigns depended on configurations of proximity, tie strength, status, and network position.

Analytical model

Figure 1 summarizes the analytical chain used in the study. EM principles guide the selection and adjustment of tactics. Social media and content provide visibility infrastructure; WoM and networking mobilize trust, recommendation, and access; leads, replies, and meetings constitute proximal signals; and commercial and efficiency outcomes complete the evaluation. The arrows represent a theoretical logic for organizing evidence, not causal relationships confirmed by this study.

Proposed analytical chain for an entrepreneurial marketing campaign



The final stage could not be evaluated with the available data: demos, quotations, orders, time, and expenditure were unrecorded.

Figure 1. Proposed analytical chain for an entrepreneurial marketing campaign.

Four analytical expectations were formulated from the model: (a) social media/content provides visibility conditions that may enable relationships; (b) WoM intensity may be associated with responses attributable to invitations; (c) networking intensity may be associated with progression toward meetings and demonstrations; and (d) responses may

vary according to actor role and temporal lag. These expectations guide interpretation of the case but are not subjected to causal testing with the available data.

Table I. Analytical position of the campaign components.

Level	Components	Function in the model	Expected indicators
Orientation	Change-driving, bootstrapping, and risk-taking	Guide opportunity creation, resource leveraging, and experimentation with calculated risk.	Decisions, adaptation, mobilized resources, and affordable-loss rules.
Tactics/channels	Social media, content, email, and invitations	Generate exposure, trust-building materials, and touchpoints.	Impressions, reach, views, clicks, interactions, and invitations.
Mechanisms	WoM and networking	Mobilize recommendation, trust, access, information, and relationships.	Referrals, replies, leads, meetings, and presentations.
Proximal outcomes	Funnel activation and progression	Capture early signals following exposure.	Leads, meetings, and demos.
Final outcomes	Closure and efficiency	Assess commercial performance and resource use.	Quotations, orders, revenue, time, and expenditure.

Note. The level assigned to each component is a theoretical decision of the study and should be examined in future replications. Source: Authors' elaboration.

2. Materials and Methods

Design

An applied, instrumental, longitudinal single-case study of a phased business intervention was conducted. The MetricSci case was bounded by one organization, one campaign sequence, and a 56-day period. This design is appropriate when the objective is to understand a contemporary phenomenon within its context and to integrate process, conditions, and observed outcomes [25]. Case-study research further emphasizes explicit questions, traceable evidence, and a close link between constructs and observations [26]. The case is instrumental because it examines a broader problem: the operationalization of EM campaigns in knowledge-intensive technology firms.

This classification differs from the single-case experimental design initially proposed in the doctoral protocol. The available implementation contains no intervention-free baseline phase, cycle replication, or repeated commercial outcomes. Nor is there a control group or assignment of conditions. Therefore, the study is not reported as a causal N-of-1 design, an interrupted time series, or a field experiment. Its inferential scope is limited to describing implementation, quantifying early responses, and proposing plausible contributions.

Context and case selection

MetricSci was purposively selected because it offers technology services related to scientometrics, bibliometric analysis, and scientific visualization. Its offering requires explaining specialized solutions and engaging with researchers, libraries, and graduate programs, making trust, recommendation, and access to institutional actors particularly relevant. The case also offered the possibility of recording daily activity. According to the MetricSci corporate website, the company develops technological solutions for the analysis, organization, and management of scientific and academic data.

Its public portfolio includes specialized software for scientometric analysis, consulting and training, preparation of academic figures and tables, and workflow optimization. The stated segments are researchers, graduate students, research faculty, research groups, and academic institutions; the organization operates from Valledupar, Cesar, Colombia. The website does not report the year of establishment, number of employees, size classification, typical sales cycle, or price ranges; these characteristics are therefore not attributed in the study.

Intervention period and structure

The tracking sheet records 56 daily observations, from Apr 13 to Jun 7, 2026. The period was divided into four consecutive 14-day phases: social media/content (Apr 13–Apr 26), WoM (Apr 27–May 10), networking (May 11–May 24), and Mix (May 25–Jun 7). All four phases contained activity or measurement records for 14 of 14 days. The WoM phase recorded 25 invitations per day; networking distributed outreach across libraries, doctoral programs, and master's programs; and Mix was implemented through successive rather than simultaneous sub-blocks: six days for doctoral programs, five for libraries, one for WoM, and two for social media. No pauses or external events were documented. The LAG log shows lags of 0 to 17 days, meaning that responses originating in one phase may have been recorded during the next.

Table II. Recorded campaign sequence.

Phase	Dates according to the sheet	Reconstructed operational purpose	Recorded activity
1. Social media/content	Apr 13–Apr 26, 2026	Generate visibility and engagement across digital channels.	Instagram, Facebook, and LinkedIn metrics recorded throughout the 14 days; the sheet does not preserve scripts, content assets, or named persons responsible.
2. WoM	Apr 27–May 10, 2026	Activate recommendations through invitations to researchers associated with Tree of Science.	Twenty-five invitations per day for 14 days (350 in total); WoM leads were recorded. The sheet does not preserve the email text or identify a named person responsible.
3. Networking	May 11–May 24, 2026	Contact institutional actors and advance toward commercial conversations.	Outreach over 14 days: libraries (3), doctoral programs (7), and master's programs (4); leads and two one-to-one meetings were recorded.
4. Mix	May 25–Jun 7, 2026	Integrate networking, WoM, and social media through successive sub-blocks.	Sequential implementation: doctoral programs, 6 days (180 emails); libraries, 5 days (149); WoM, 1 day (28 invitations); social media, 2 days. No pauses or external events were documented.

Note. The sheet records a four-phase sequence. This differs from the prospective protocol, which proposed a baseline and replicated campaigns. Source: Authors' reconstruction from MetricSci Campaign Tracking (JUN-18).

Sources, units, and indicators

Two worksheets from the tracking file were used. The General sheet contains rows for exposure, social activity, leads, meetings, and fields intended for outcomes and resources across t1–t56. The LAG sheet contains 29 records with sending and reply dates, actor roles, and an operational note. To protect privacy, the manuscript uses only aggregate data and does not reproduce names, institutions, email addresses, telephone numbers, or individualized comments.

The unit of analysis is the case organization; the calendar day is the temporal unit; and contacts or response events are secondary units of observation. The indicators were organized into four levels: exposure, proximal response, commercial outcome, and resources. Table III distinguishes available fields from those without observations.

Table III. Variables, operational definitions, and availability.

Level	Variable	Definition used in this version	Availability
Exposure	Social activity	Metrics reported by platform; they are not aggregated across platforms because definitions differ.	Available primarily in phase 1 and on two days of phase 4.
Exposure	WoM invitations	Invitations recorded each day for actors who could potentially make recommendations.	Available in phase 2 and on one day of phase 4.
Exposure	Networking contacts	Emails/contacts recorded with librarians and graduate program coordinators.	Available in phases 3 and 4; deduplication remains pending.
Proximal response	Leads	Records entered as interested parties in the WoM or networking rows.	Available; the definition and attribution rule remain pending.
Proximal response	One-to-one meetings	Meetings recorded with contacted actors.	Two records in phase 3; reconciliation with the calendar remains pending.
Commercial outcome	Presentations, demos, quotations, and orders	Funnel progression and closure anticipated in the instrument.	No data in the sheet; these fields were not interpreted as zeros.
Resources	Minutes and expenditure	Time and daily expenditure intended for evaluating efficiency.	No data in the sheet.
Temporality	Lag	Days between the sending date and the reply date.	Available for 29 events.

Note. The absence of a value may mean that the event did not occur, was not applicable, or was not recorded; the current version does not replace blank cells with zero. Source: Authors' elaboration based on MetricSci Campaign Tracking (JUN-18).

Data preparation and análisis

The analysis retained the two original sheets as sources and used a synthesis layer to reproduce aggregates by phase. The longitudinal reconstruction followed a temporal-bracketing logic suitable for process data [27]. Social metrics were summed within each platform and row without combining them into a global index. Descriptive rates were calculated only when both a numerator and denominator were available: WoM leads/invitations, networking leads/contacts, and meetings/contacts. Networking contacts were summed across actor categories under the provisional assumption that they were mutually exclusive; this assumption is stated because no pseudonymous identifier was available to detect duplicates.

Lag was calculated as the reply date minus the sending date for the 29 records in the LAG sheet. The mean, median, and range were obtained. Operational comments were not subjected to thematic coding because no qualitative question, sampling protocol, consent procedure, codebook, or integration procedure was available. Empty fields for demos, quotations, orders, minutes, and expenditure were treated as missing data. Count, mediation, hurdle, and zero-inflated models were not estimated because the necessary outcomes were unavailable.

Quality, ethics, and reflexivity

Analytical quality was addressed through traceability to file, sheet, row, and range; differentiation between activity and outcome; preservation of blank cells; and independent recalculation of rates and lags. Platform rates containing division errors or non-auditable denominators were excluded. The study used existing organizational operational records and reports only aggregate results; names, institutions, email addresses, telephone numbers, and individualized comments were excluded. The researcher's direct role in the campaign is disclosed in the conflicts-of-interest statement. The available record does not contain a formal ethics-review determination or organizational authorization; the corresponding author must verify that the applicable documentation is in place before submission. Measurement risks remain because of incomplete definitions, potentially overlapping categories, carryover between phases, and unrecorded concurrent actions.

3. Results

Implementation and exposure by phase

The first phase concentrated social media/content activity. Instagram recorded 1,688 views, a reach of 1,444, 66 likes, 4 comments, and 1 new follower. Facebook recorded 670 views, 485 users/views, 48 interactions, and 38 visits. LinkedIn recorded 867 impressions, 290 views, 80 interactions, 27 clicks, 46 reactions, 1 comment, and 6 shares. These metrics describe exposure and engagement within each platform and were not summed across platforms.

The WoM phase recorded 350 invitations, distributed at a rate of 25 per day over 14 days. The networking phase recorded 417 contacts: 87 librarians, 210 doctoral program coordinators, and 120 master's program coordinators. The sum assumes that the categories are mutually exclusive. The Mix phase recorded 329 networking contacts—149 librarians and 180 doctoral program coordinators—as well as 28 WoM invitations on a single day. Social activity reappeared only during the final two days and at lower volumes than in the first phase.

Early responses

The WoM phase recorded 7 leads from 350 invitations, equivalent to a descriptive rate of 2.00%. This ratio represents recorded leads per invitation rather than a viral diffusion factor because the dataset does not identify referral cascades or generations. The networking phase recorded 16 leads from 417 contacts (3.84%) and 2 one-to-one meetings (0.48%). The row for 20-minute presentations contained no data.

The Mix phase recorded 6 networking leads from 329 contacts (1.82%). The WoM lead fields remained blank; consequently, they were not interpreted as zero, and no rate was calculated for the 28 invitations. The differences among 2.00%, 3.84%, and 1.82% are descriptive and do not constitute evidence that one mechanism is superior: the populations, intensity, simultaneity of actions, and attribution rules are not equivalent.

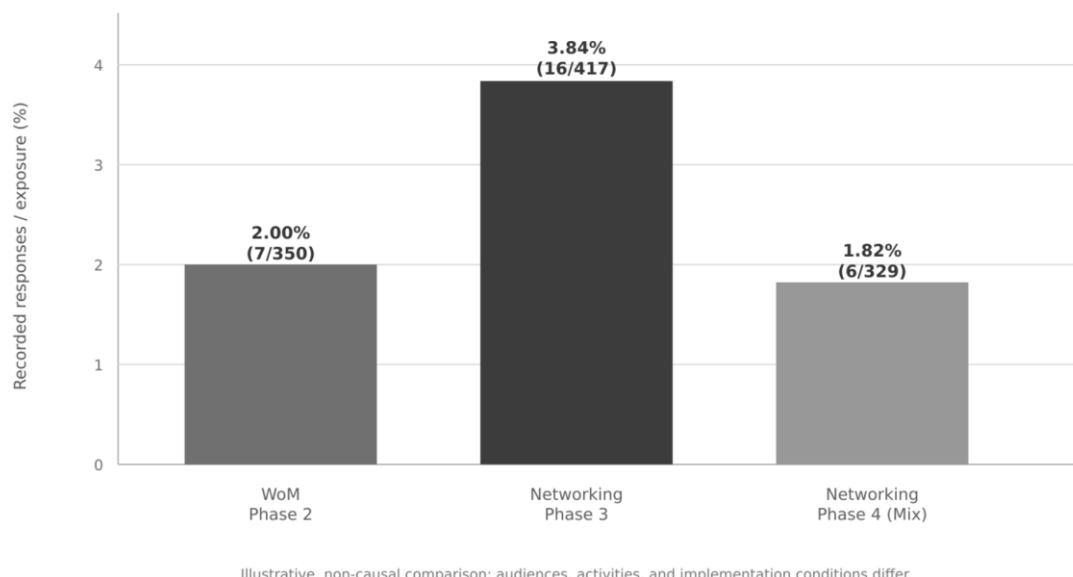


Figure 2. Descriptive early-response rates with observed denominators.

Fuente: Autores

Response lags and profiles

The LAG sheet contains 29 events dated between Apr 28 and Jun 4, 2026. The mean lag between sending and reply was 3.28 days, the median was 1 day, and the range was 0 to 17 days. The difference between the mean and median indicates a skewed distribution: many responses were concentrated close to the initial contact, whereas some events took more than one week. This pattern supports the need for explicit attribution windows and follow-up after each phase.

By operational role, the records were distributed among 13 opinion leaders associated with doctoral programs, 4 opinion leaders associated with master's programs, 6 influencers in the library field, 4 ambassadors linked to Tree of Science, and 2 customer ambassadors. The categories were taken from the sheet and were not reinterpreted.

Commercial outcomes not observable in the dataset

The rows intended for presentations, demos, quotations, orders, minutes, and expenditure contained no observations. This absence does not demonstrate that the events did not occur; it only indicates that the supplied sheet cannot document them. Consequently, the study does not estimate conversion to sales, revenue, cost per lead, time efficiency, or return. Nor can it claim that the campaign improved commercial performance.

Table IV. Summary of implementation and observed responses.

Phase	Main exposure	Recorded response	Descriptive rate	Interpretive limitation
Social media/content	Separate Instagram, Facebook, and LinkedIn metrics over 14 days.	Interactions by platform; no attributable leads recorded.	Not calculated.	Exposure without a baseline or lead-attribution rule.
WoM	350 invitations.	7 leads.	2.00% (7/350).	Proximal conversion; no K-factor or effect on orders.
Networking	417 contacts.	16 leads and 2 one-to-one meetings.	3.84% leads; 0.48% meetings.	Possible duplicates and pending definitions; downstream funnel fields empty.
Mix	329 networking contacts; 28 WoM invitations in one day; social activity on 2 days.	6 networking leads.	1.82% (6/329).	Combined phase and uneven implementation; components cannot be isolated.

Source: Authors' calculations based on the General sheet of MetricSci Campaign Tracking (JUN-18). Blank cells were retained as missing.

Interpretation of the findings

The MetricSci case reveals the distance between an EM orientation and its operational evaluation. The campaign did translate principles of frugality and relationship mobilization into a concrete sequence, but evidence quality varied across phases. Social media/content generated exposure and engagement; WoM produced a proximal response traceable to a number of invitations; networking produced leads and two meetings; and the Mix phase combined components under non-equivalent conditions. The sequence demonstrates implementation feasibility but does not permit attribution of outcomes to each phase. The first conceptual finding is that social media and content should be positioned as enabling infrastructure rather than as a final outcome or EM dimension. Social metrics from

the first phase show that the organization generated visibility across three platforms, but the absence of attributable leads precludes concluding either that the phase did not work or that it caused subsequent responses. Content may operate indirectly by providing signals of expertise that later circulate through recommendations and contacts. This interpretation is consistent with the relational function of social media in small B2B firms, but it requires tracking contact and exposure trajectories.

The second finding concerns WoM. The 7 leads from 350 invitations demonstrate a recordable response, not self-sustaining diffusion. This distinction matters because WoM programs include different configurations—seeding, referrals, and recommendations—and their value depends on who participates, how activation occurs, the relationship connecting sender and recipient, and the outcome measured [10]. Evidence from Eggers et al. [14] on software referral campaigns reinforces the proposition that relational characteristics may matter more than volume alone. In MetricSci, the dataset does not preserve tie strength, status, network position, or chain identifiers; the 2.00% rate should therefore be interpreted as an early conversion rate.

The third finding concerns networking. The lead rate was 3.84%, and two meetings were recorded, which is consistent with an access function in the middle of the funnel. This evidence aligns with studies describing networking as a means of mobilizing information, reputation, and knowledge and developing marketing capabilities [12], [13]. However, the sheet does not document presentations, demos, or quotations. The case therefore does not demonstrate that networking moved opportunities through to closure. Instead, it identifies the precise point at which traceability breaks down and where measurement should be concentrated.

The lag distribution adds a temporal implication. A median of one day indicates that many responses were recorded promptly, but the range of up to 17 days shows that a window limited to the phase may incorrectly assign delayed responses. Moreover, the Mix phase began while earlier contacts could still mature. This carryover prevents each 14-day block from being treated as an independent condition. Future evaluations should define windows of 7, 14, 21, or more days, preserve the contact identifier, and distinguish the dates of exposure, response, meeting, demo, quotation, and order.

Phase-level rates should not be ranked as measures of performance. Networking in phase 3 displays the highest numerical value, but it targeted audiences different from those in WoM, used different exposure categories, and occurred after an earlier phase of visibility and invitations. The Mix phase also had uneven implementation: social media appeared on two days and WoM on one. Without a counterfactual, a baseline, and attribution rules, any difference may be due to the audience, message, sequence, lag, duplicates, seasonality, or simultaneous actions.

The theoretical contribution of the case is therefore modest but useful. An EMC can function as a meso-analytical unit connecting a relatively abstract orientation to a bounded intervention. The proposed hierarchy avoids three common confusions: treating channels as EM dimensions, interpreting activity as performance, and assuming that a temporal sequence demonstrates causality. The methodological contribution lies both in what the

record permits—rates and lags—and in what it reveals to be missing: final outcomes, resources, identifiers, definitions, and a baseline.

Theoretical implications

First, the study proposes separating levels of analysis. Change-driving, bootstrapping, and risk-taking represent orientation principles; social media, content, emails, and invitations are tactics or channels; WoM and networking are relational mechanisms; leads and meetings are proximal responses; and demos, quotations, and orders are funnel and closure outcomes. This hierarchy enables more precise relationships to be formulated and avoids attributing to a tactic an outcome that depends on several stages.

Second, temporal sequence should be incorporated into campaign theory. Mechanisms can complement one another and generate carryover: prior content may legitimize an invitation, a recommendation may facilitate a meeting, and a delayed response may occur during another phase. An EMC should not be represented as a sum of independent tactics, but as a configuration in which sequence, dosage, audience, and response windows condition interpretation.

Managerial implications

For a technology SME, the main lesson is not to choose the mechanism with the highest rate, but to establish traceability before scaling the campaign. Each contact should have a pseudonymous identifier and a record of date, channel, tactic, role, first source, multiple exposures, and funnel progression. Blank fields should distinguish among did not occur, not applicable, and not recorded. This distinction prevents an absence of measurement from becoming a false absence of outcomes.

The campaign must also be linked to resources. Recording minutes, direct expenditure, paid media, tools, and the person responsible makes it possible to calculate cost and time per lead, meeting, demo, and order. For services with long decision cycles, follow-up should continue for at least 30, 60, and 90 days. Campaign design should also treat accessibility as a core value-creation criterion: messages, content, contact channels, and digital touchpoints should be usable by people with sensory disabilities rather than assuming a homogeneous audience [28]. Finally, a prior baseline and stabilization periods are necessary if the firm seeks to estimate changes rather than merely describe activity.

Table V. Minimum recommended architecture for future campaigns.

Component	Minimum data	Decision enabled
Pseudonymous identity	event_id, contact_id, and referrer_id.	Deduplicate and reconstruct WoM chains and trajectories.
Exposure	Date-time, phase, channel, tactic, message, actor, and dosage.	Compare implementation and fidelity.
Funnel	Lead, meeting, demo, quotation, order, date, and value.	Observe progression, closure, and lag.
Attribution	First/last interaction, multiple exposures, and window.	Avoid arbitrary assignment to a phase.
Resources	Minutes, expenditure, paid media, tools, and person responsible.	Estimate efficiency and affordable loss.
Context	Holidays, price/offering changes, events, failures, and parallel campaigns.	Assess rival explanations.
Quality	Definition of zero, blank, not applicable, source, and auditor.	Reproduce calculations and prevent bias.

Note. The table derives from gaps observed in the case and should be adapted to the CRM and applicable regulations. Source: Authors' elaboration.

Limitations

The study has substantive limitations. First, it analyzes a single firm and a single sequence and therefore seeks analytical transfer rather than statistical generalization. Second, the first phase already contained an intervention, and no comparable baseline exists. Third, commercial outcomes and resources are not recorded in the available sheet. Fourth, intensity and coverage differ across phases, especially in the Mix block. Fifth, the absence of pseudonymous identifiers prevents verification of duplicates, multiple exposures, and attribution.

Sixth, the definitions of lead, meeting, and actor role require validation. Seventh, the lag log may contain responses associated with earlier exposures and has not yet been reconciled with the General sheet. Eighth, the comments do not constitute a formal qualitative component. Ninth, the researcher's role in campaign design and implementation may introduce reflexivity and bias. Tenth, the available records do not include a formal ethics-review determination or organizational authorization, limiting the auditability of

governance procedures. These limitations restrict the language to observed responses and plausible contributions.

Future research

A subsequent stage should be prospectively designed with a stable baseline, repeated outcomes, prespecified attribution rules, and at least three comparable campaigns or a multiple-baseline design. If a single-case experimental design is adopted, reporting should address repetition, fidelity, measurement, and transparency criteria such as those established by SCRIBE [29]. The analysis could model level and trend only after verifying series length, autocorrelation, overdispersion, and the quality of recorded zeros.

Mechanisms, not only outcomes, should also be evaluated. Trust, legitimacy, tie strength, and lead quality may explain why some recommendations or contacts progress. Replications should compare technology sectors, firm sizes, and sales cycles and maintain follow-up at 30, 60, 90, and 180 days. Finally, a planned qualitative component could explain objections, purchasing decisions, and campaign adaptations.

Conclusions

MetricSci implemented a 56-day entrepreneurial marketing campaign with four consecutive phases: social media/content, WoM, networking, and Mix. The available evidence documents exposure and 29 response events in the LAG sheet; separately, the rows in the General sheet total 29 leads across mechanisms and phases and two one-to-one meetings. A one-to-one relationship between the two sheets could not be established. The descriptive rates were 2.00% for WoM leads in phase 2, 3.84% for networking leads in phase 3, and 1.82% for networking leads in the Mix phase. These figures show recordable early responses, not causal effects or commercial impact.

The main contribution is to organize the campaign into analytical levels: EM orientation, enabling tactics, relational mechanisms, proximal responses, commercial outcomes, and efficiency. This separation improves interpretation and shows that measurement is part of the design rather than a subsequent activity. Without demos, quotations, orders, time, expenditure, a baseline, and attribution, the campaign cannot be evaluated in terms of final performance.

The case therefore supports a cautious conclusion: WoM and networking can be operationalized within a frugal sequence and generate early signals, but their contribution to closure must be established through event traceability, follow-up, and comparable designs. For technology SMEs, the transferable lesson is twofold: mobilizing relationships can expand market access, and only a coherent data architecture can convert commercial activity into useful evidence for decision-making.

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Declarations

Conflicts of interest: The researcher participated in the development and analysis of the study on MetricSci; this direct relationship with the organization under study constitutes a potential conflict of interest and is expressly disclosed. To reduce its influence, traceable operational records were used, the indicators were recalculated, the results were reported in aggregate form, and non-causal language was maintained.

Use of artificial intelligence: ChatGPT (OpenAI) was used to support manuscript organization, preliminary drafting, and stylistic review. The tool was not used to produce or alter empirical data, conduct analyses without verification, or generate unverified references. The author reviewed and validated the claims, calculations, citations, and references and assumes full responsibility for the final version.

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