

# What Drives Social Media Adoption in Resource-Constrained SMEs?

From WhatsApp dominance to a strategic digital divide

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## Abstract

This article examines how small and medium enterprises (SMEs) in Johannesburg, South Africa use and integrate social media and asks whether the pattern of use indicates a simple access problem or a deeper strategic digital divide. Drawing on the quantitative phase of a sequential explanatory mixed-methods study, the analysis uses 814 valid SME responses and is interpreted alongside qualitative evidence from 18 owner-managers. The findings show a highly concentrated platform ecology: WhatsApp was used by 89.2% of respondents, followed by Facebook (56.3%), X (52.1%) and Instagram (46.4%). Use was predominantly outward-facing, with advertising and promotion reported by 78.3% of respondents, information sharing/search by 66.1%, and market research by 61.2%. At the same time, 63.2% of non-adopters reported no intention to adopt social media. The qualitative evidence indicates that non-adoption was not adequately explained by ignorance of digital platforms; rather, owner-managers questioned relevance, compatibility with localized business models, and the opportunity cost of sustained digital engagement. The article argues that SME digital policy should move beyond generic connectivity and platform-awareness interventions toward differentiated capability building, platform fit, and adoption-relevance interventions. The contribution is a context-sensitive account of strategic digital exclusion in a developing-economy SME ecosystem.

**Keywords—SMEs; Social Media; WhatsApp; Digital Divide; Johannesburg; Digital Integration**

## I. INTRODUCTION

Social media has become an important component of contemporary business communication, marketing and customer relationship management. Yet the organizational consequences of social media adoption are uneven, particularly among small firms whose digital choices are constrained by managerial attention, skills, finance and market scope. The literature frequently treats social media as a broad category of networked platforms, while SME research often emphasizes the benefits of digital visibility, customer engagement and low-cost marketing. The Johannesburg evidence suggests a more differentiated reality: firms may have access to social media technologies while simultaneously remaining strategically excluded from sustained digital participation.

This distinction matters because the presence of a social media account is not equivalent to digital integration. A firm may use a platform tactically for messaging without embedding it into marketing, customer service, order processing, market intelligence or strategic decision making. The thesis from which this article is derived therefore examined both current use and integration rather than adoption as a binary technological event. This approach is consistent with wider calls to understand digital transformation as an organizational process rather than as the simple acquisition of a technology [1], [2].

The article addresses a focused question: how are Johannesburg SMEs actually using social media, and what does the pattern of use reveal about the nature of the SME digital divide? The central argument is that the divide is increasingly strategic. It concerns perceived relevance, platform fit, capability and the capacity to sustain digital engagement, not merely whether a firm knows that social media exists.

## II. CONCEPTUAL BACKGROUND

Social media is an umbrella category spanning public networking platforms, visual-media services and messaging environments. [3] demonstrate the historical and definitional breadth of the field, while [4] positions digital marketing as a broader ecosystem in which multiple channels and customer touchpoints interact. For SMEs, however, platform choice is shaped by resource constraints and the immediate utility of the technology. The thesis evidence is particularly important because WhatsApp—an application often treated differently from conventional social networking sites—was the dominant business platform in the sample.

Platform dominance can be interpreted through the lens of perceived utility and compatibility. [5] argues that innovations diffuse more readily when potential adopters perceive relative advantage, compatibility, trialability and observability. In SME environments, these attributes are inseparable from operational realities. A platform that

enables immediate customer communication with minimal technical effort may be more valuable than a sophisticated platform requiring continuous content production and analytics expertise. Thus, adoption should be understood as a portfolio decision in which SMEs select technologies that fit their customers, routines and resources.

The digital divide concept is similarly evolving. Traditional formulations emphasize access to infrastructure, devices and connectivity. The Johannesburg findings point to a second-order divide: firms can possess digital access while lacking the organizational readiness, perceived relevance or managerial time needed for meaningful integration. This strategic divide is visible in the contrast between diversified adopters and firms that remain almost entirely dependent on face-to-face or conventional communication.

### III. METHODS

The study used a sequential explanatory mixed-methods design. The quantitative phase targeted 5,983 SMEs in the stated Department of Trade and Industry database for Johannesburg. A total of 1,247 responses were received; after removal of incomplete and straight-lined responses, 814 valid questionnaires remained, representing a reported 13.6% response rate against the stated sampling frame. Early respondents ( $n=412$ ) and late respondents ( $n=402$ ) were compared to assess potential non-response bias, with the thesis reporting no statistically significant differences across the assessed characteristics ( $p>.05$ ).

The qualitative phase comprised semi-structured interviews with 18 SME owner-managers, selected purposively to include adopters and non-adopters. Qualitative data were analyzed thematically and used to explain patterns emerging from the quantitative phase. The mixed-methods sequence therefore provided breadth in the platform-use profile and depth regarding the reasons behind adoption and non-adoption.

### IV. RESULTS

TABLE I. PLATFORM USE AND PRINCIPAL BUSINESS APPLICATIONS REPORTED IN THE THESIS

| Platform / use             | Percentage of SMEs |
|----------------------------|--------------------|
| WhatsApp                   | 89.2%              |
| Facebook                   | 56.3%              |
| X (formerly Twitter)       | 52.1%              |
| Instagram                  | 46.4%              |
| Advertising and promotion  | 78.3%              |
| Information sharing/search | 66.1%              |
| Market research            | 61.2%              |
| Networking/partnerships    | 35.4%              |

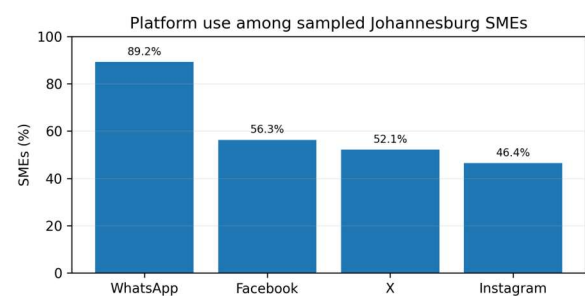


Fig. 1. Platform use among sampled Johannesburg SMEs. Percentages reproduce the descriptive findings reported in the thesis.

WhatsApp emerged as the dominant platform, used by 89.2% of respondents. Facebook, X and Instagram were also used by substantial proportions, but at markedly lower levels. The pattern indicates that the communication architecture of the sample was anchored in a platform with strong direct-contact functionality. The principal uses were similarly practical: advertising and promotion, information sharing/search, and market research were more prominent than networking and partnership building.

The enterprise profile provides an important contextual explanation. More than half of the enterprises had operated for over five years (55.1%), 60.3% reported annual sales below R100,000, and 53.1% operated primarily in local markets. The sample was therefore dominated by resource-constrained enterprises for which the value of social media was likely to be judged through immediate operational utility rather than through abstract digital-transformation goals.

The most consequential result for the digital-divide argument was the persistence of non-adoption. The thesis reports that 63.2% of non-adopters had no plans to adopt social media. Qualitative profiles showed that some non-adopters considered social media poorly aligned with localized, relationship-based business models. One larger enterprise also remained a non-adopter, demonstrating that organizational size alone did not guarantee adoption.

The platform pattern should be interpreted as a business-use hierarchy rather than as a simple ranking of social-media brands. WhatsApp occupies a distinctive position because it combines communication, service coordination and rapid customer interaction within a familiar mobile environment. Facebook, X and Instagram perform more visible promotional and engagement functions, while LinkedIn is more closely associated with professional networking and business-to-business activity. The empirical pattern therefore suggests that adoption decisions are partly shaped by the functional fit between a platform and the immediate operating routines of a small firm. This is consistent with the thesis emphasis on compatibility and relative advantage: a platform is more likely to become embedded when its perceived benefits can be translated into existing customer-facing routines without requiring extensive organisational redesign.

The distinction between adoption and integration is particularly important. High platform usage does not necessarily imply sophisticated digital transformation. An enterprise may communicate with customers through a messaging application every day while still relying on manual record keeping, owner-managed content creation and informal decision processes. The thesis evidence supports this interpretation because social media was used strongly for advertising and promotion, information sharing, market research, customer service and customer feedback, but the qualitative evidence also identified constraints associated with managerial time, technical knowledge and security concerns. The implication is that platform presence should not be treated as a sufficient proxy for digital maturity. Future research should distinguish access, active use, routinised use and strategic integration.

The Johannesburg setting also matters analytically. The study is located in a large and economically diverse urban environment in which SMEs operate under different levels of resource availability and market pressure. In such a setting, a mobile-first platform can lower coordination costs because communication is immediate and familiar to customers and owner-managers. At the same time, the same accessibility can encourage fragmented or highly personalised business communication. The thesis therefore provides a basis for interpreting social media as both a market-facing technology and an extension of the owner-manager's operational role. This dual character helps explain why managerial time emerged elsewhere in the study as an important constraint: the platform can be easy to access while still being difficult to manage consistently.

The evidence further suggests that platform choice is connected to the perceived risk of adoption. Respondents recognised social media's value and multimedia benefits, yet concerns about algorithm management, security and legal or technical safety remained. This combination of high perceived usefulness and continuing risk perception is theoretically consequential. It indicates that SMEs do not necessarily move from awareness to strategic integration in a linear manner. Rather, they balance expected customer and communication benefits against uncertainty about control, privacy, security and the time required to manage the channel. The result is likely to be selective adoption in which owner-managers concentrate effort on platforms whose immediate business value is easiest to observe.

The prominence of WhatsApp also has implications for how social-media adoption is measured in developing-economy research. Measures that focus primarily on public networking sites can underestimate the intensity of business communication occurring through messaging applications. The thesis findings indicate that messaging, service delivery and order-related interaction are central components of the observed adoption pattern.

Accordingly, a more context-sensitive instrument should include messaging-based interaction, customer support and transaction coordination alongside conventional measures such as posting, advertising and brand engagement. This is not an argument that one platform is universally superior; it is an argument that the operational meaning of social-media adoption is shaped by local business practice.

Taken together, the findings support a layered interpretation of social-media adoption. The first layer is access and platform availability; the second is functional use for marketing, communication and customer service; the third is organisational embedding; and the fourth is strategic integration into broader business processes. The Johannesburg evidence is strongest for the first two layers and provides important qualitative insight into the constraints affecting deeper integration. This distinction strengthens the contribution of the study because it prevents the empirical discussion from equating frequency of platform use with organisational transformation.

A further implication concerns the role of competitive and customer pressure. When customers expect rapid digital communication, an SME may adopt a platform not because the owner-manager has independently prioritised digital innovation, but because the market makes non-adoption increasingly costly. Competitive pressure can operate similarly by changing the perceived opportunity cost of remaining absent from a channel used by rivals. This environmental logic complements the technology-centred explanation of platform fit. Social-media adoption is therefore simultaneously a response to perceived technological value and a response to changing market expectations.

The qualitative component adds an important interpretive layer to these quantitative patterns. Interviews with owner-managers were able to explain why adoption could be strong in some functions and weak in others. Informal support networks, prior experience and practical knowledge can reduce uncertainty, while competing work and family commitments can reduce the capacity to sustain regular content and engagement. The sequential explanatory design is therefore valuable not simply because it combines two datasets, but because it allows statistical patterns to be interpreted through the everyday operating conditions of SMEs.

The platform findings should also be read against the resource constraints that characterise many SMEs. A large enterprise can allocate specialist staff to content, analytics, customer service and cybersecurity, whereas an owner-managed enterprise may assign all of these functions to one person. The same platform may consequently generate very different organisational burdens across firms. The thesis's emphasis on management support, CEO innovativeness, technical knowledge and managerial time suggests that platform adoption is inseparable from the organisational capacity to sustain it.

For future studies, the Johannesburg findings provide a useful basis for longitudinal work. Cross-sectional adoption rates can establish which platforms are currently used, but they cannot fully explain whether firms deepen, diversify or abandon their use over time. Longitudinal designs could examine whether trial use becomes routinised use, whether observable benefits increase commitment, and whether security or time constraints lead to retrenchment. Such work would also help distinguish temporary platform experimentation from sustained digital capability development.

A further interpretation concerns the relationship between visibility and value. Publicly visible platforms can create the impression that digital adoption is primarily a branding exercise, yet the Johannesburg data show substantial use for direct communication and operational interaction. This means that the business value of social media may be realised through less visible activities, including customer enquiries, service coordination and feedback. The finding supports a broader conception of digital value creation in which communication efficiency is considered alongside promotional reach.

The study also suggests that adoption decisions are likely to be path dependent. Once an SME has established customer relationships on a familiar platform, switching or adding channels can impose learning and coordination costs. This may reinforce the dominance of platforms that are already embedded in customer routines. Trialability and observability can reduce the perceived risk of adding a new channel, but the owner-manager still has to justify the additional time and attention required. The result is a plausible explanation for selective rather than indiscriminate platform expansion.

## V. DISCUSSION

Three implications follow. First, platform choice in this context is strongly shaped by functional fit. The dominance of WhatsApp suggests that direct communication, customer responsiveness and low technical barriers can outweigh the broader visibility offered by public social networks. This finding extends the usual platform-centric account of social media marketing by emphasizing the role of messaging infrastructure in SME digitalization.

Second, the findings distinguish adoption from integration. A firm can use a platform without building a coherent digital strategy around it. The relatively high use for promotion and information sharing indicates that SMEs recognize immediate marketing value, while the lower use for networking suggests underexploited business-to-business potential. [6] similarly emphasize the strategic possibilities of social media in B2B settings. The Johannesburg evidence suggests that capability interventions should therefore move beyond account creation toward purposeful portfolio management.

Third, the persistent non-adoption pattern indicates that digital policy cannot assume that information about platforms will automatically produce adoption. If a business owner perceives little relative advantage, poor compatibility with current operations or excessive managerial burden, awareness campaigns may have limited effect. This is consistent with the TOE logic underpinning the wider study: technological attributes interact with organizational capacity and environmental conditions rather than operating independently.

The strategic digital divide is therefore better conceptualized as a gradient. At one end are firms using a single familiar platform for basic communication; in the middle are firms integrating multiple platforms for marketing and customer management; and at the advanced end are firms using diversified platforms strategically. Non-adopters constitute a distinct segment whose barriers are partly cognitive and organizational, not simply infrastructural.

For SME owner-managers, the central practical lesson is to select platforms according to identifiable business functions rather than popularity alone. A platform should be assessed against customer communication needs, service delivery, promotion, feedback, market research and the firm's available managerial capacity. The evidence suggests that a focused portfolio may be more sustainable than attempting to maintain a presence across every available channel. This is especially relevant where social-media responsibilities remain concentrated in the owner-manager role.

For support institutions, digital programmes should move beyond generic awareness campaigns. Training should combine platform skills with practical routines for content planning, customer response, security awareness and time management. The thesis evidence indicates that perceived benefits are already relatively strong; therefore, interventions should address the organisational and contextual conditions that determine whether perceived value can be converted into sustained practice.

The findings have a second implication for measurement validity. Platform adoption should be operationalised in a way that captures the purpose for which the technology is used. In the present study, social media served several functions, including advertising and promotion, information sharing and search, market research, customer service and customer feedback. These functions are not interchangeable. A firm that uses WhatsApp primarily for customer service has a different digital capability profile from a firm that uses Instagram for visual branding, even though both would be classified as adopters under a binary measure. Future instruments should therefore combine adoption status with functional-use indicators.

The results also caution against assuming that platform diversity necessarily represents stronger digital

performance. Maintaining several channels can increase visibility, but it can also increase the managerial burden of content creation, response management and monitoring. For owner-managed SMEs, the opportunity cost of additional channels may be substantial. The evidence supports a more strategic principle: platform breadth should follow demonstrable business value and organisational capacity. This interpretation is consistent with the thesis finding that perceived lack of managerial time is a meaningful organisational constraint.

A third implication concerns digital-support policy. Training programmes frequently present social media as a low-cost route to market access, but low monetary cost does not imply low organisational cost. Support agencies should therefore teach prioritisation as well as platform functionality. SMEs can be assisted to identify their highest-value customer journeys, choose the platform that best supports those journeys, establish response standards and measure a small number of useful outcomes. Such an approach would convert social-media adoption from a general awareness objective into a manageable business process.

For researchers, the study creates a useful basis for separating communication infrastructure from marketing technology. Messaging platforms may perform operational roles that are overlooked when social media is conceptualised primarily as public content distribution. The Johannesburg evidence suggests that this distinction matters for theory, measurement and policy because the dominant channel in the sample was also one of the channels most directly embedded in everyday customer interaction.

## VI. IMPLICATIONS

For SME owner-managers, the evidence supports a platform-fit approach. WhatsApp can function as a low-complexity entry point for customer communication and order processing, while Facebook and Instagram can be added where visual promotion is strategically relevant. For support institutions, training should be modular and application-oriented, covering customer engagement, content planning, analytics and platform selection rather than basic awareness alone. For policymakers, SME digitalization programmes should distinguish between access, adoption and integration outcomes.

The article also has implications for measurement. Future surveys should avoid treating social media adoption as a single binary variable. Measures should capture platform portfolio, intensity of use, business function, strategic integration and sustained capability. Such measures would better identify the difference between nominal digital presence and substantive digital transformation.

The platform-centred interpretation also has a measurement implication. Researchers should distinguish the channel through which an SME communicates from

the strategic capability represented by that channel. WhatsApp use, for example, may indicate strong customer responsiveness without necessarily indicating sophisticated content strategy or analytics capability. The thesis therefore supports a multidimensional approach in which platform use, business purpose, frequency, integration and organisational capability are measured separately. Such an approach would improve comparability across studies and reduce the risk of treating any visible social-media presence as evidence of digital transformation.

Finally, the study demonstrates the value of combining broad survey evidence with owner-manager accounts when analysing SME technology adoption. Quantitative results establish the scale and pattern of platform use, while qualitative evidence reveals the practical constraints behind those patterns. The resulting interpretation is more cautious and more useful than a simple claim that SMEs are either digitally active or digitally inactive. Johannesburg SMEs display substantial engagement with social media, but the depth and sustainability of that engagement depend on technological fit, organisational capacity and environmental demands.

## VII. CONCLUSION

Johannesburg SMEs exhibit substantial social media engagement, but the pattern is highly concentrated around WhatsApp and practical customer-facing activities. At the same time, a sizeable non-adopter segment reports no intention to adopt. The evidence indicates that the contemporary SME digital divide is partly strategic: it reflects perceived relevance, platform fit, capability and managerial capacity. A more effective digitalization agenda should therefore move from generic access toward differentiated, context-sensitive interventions that help firms identify why, where and how digital platforms create value.

### A. *Extended analytical implications*

The platform hierarchy should not be interpreted as a simple popularity ranking. Platform choice is embedded in the business model of the enterprise. WhatsApp provides a direct, familiar and relatively low-friction communication channel, which is particularly valuable where transactions depend on rapid responses, repeat customers and localized relationships. Facebook and Instagram provide different forms of visibility, while X offers a distinct communication ecology. The coexistence of these platforms means that SME digitalization is better understood as a portfolio problem than as a single adoption decision.

The high use of WhatsApp also complicates conventional definitions of social media. If researchers exclude messaging platforms from the category, they risk systematically underestimating digital engagement in contexts where messaging applications are central to commercial communication. The present evidence

therefore supports a functional definition based on networked interaction, content exchange and digitally mediated relationships rather than on the historical identity of a particular platform category.

The distinction between use and integration is equally important. The reported use of social media for advertising, information search and market research suggests that SMEs recognize immediate commercial functions. However, lower engagement with networking and partnership functions indicates that the strategic potential of social platforms is unevenly realized. A mature digital strategy would connect customer communication with market intelligence, relationship development and organizational learning rather than treating social media only as a promotional channel.

The non-adopter segment deserves equal analytical attention. A common policy assumption is that non-adoption reflects lack of knowledge or access. The qualitative evidence does not support such a simple interpretation. Some non-adopters were aware of social media but judged it poorly aligned with their current operations. This is a critical distinction because interventions that merely increase awareness may not alter the underlying adoption calculus.

The evidence also indicates that enterprise size is an incomplete predictor. The presence of a relatively larger non-adopter demonstrates that scale does not automatically create strategic readiness. Conversely, small firms can exploit low-cost platforms effectively when their business model, customer base and managerial capabilities fit the technology. Future research should therefore examine the interaction between size and organizational role allocation rather than treating size as a direct proxy for digital capability.

From a measurement perspective, future studies should separate platform ownership from active use and active use from strategic integration. A firm that maintains an inactive account should not be classified in the same way as a firm that uses a platform daily for customer service and market intelligence. More granular measures would improve comparisons across sectors and countries and would provide policymakers with more meaningful indicators of digital transformation.

The Johannesburg evidence further suggests that localized market orientation can have two opposing effects. A local market may reduce the perceived need for broad digital reach, thereby discouraging adoption, but it can also make social media highly valuable as a low-cost mechanism for community-level visibility and relationship maintenance. The effect therefore depends on how owner-managers conceptualize the strategic role of digital communication.

Overall, the article supports a shift from an access-centred digital divide to a capability-and-relevance perspective. The next generation of SME digitalization

policy should ask not only whether firms can connect, but whether they can identify a useful platform, integrate it into existing work, sustain engagement and convert digital interaction into business value. This approach is more consistent with the empirical complexity of SME digitalization in developing-economy settings.

### B. Data availability and ethics

This article is derived from the doctoral study on social media adoption among SMEs in Johannesburg. The underlying study reports ethical clearance, informed consent, anonymity and confidentiality procedures. The article reports only analyses and interpretations supported by the thesis record. No new participants or new data were introduced for this manuscript.

### C. Conflict of interest

The author reports no conflict of interest.

TABLE II. SAMPLE AND MARKET-ORIENTATION INDICATORS

| Indicator                                      | Reported result         |
|------------------------------------------------|-------------------------|
| Valid survey responses                         | 814                     |
| Original sampling frame                        | 5,983 Johannesburg SMEs |
| Responses received                             | 1,247                   |
| Reported response rate                         | 13.6%                   |
| Enterprises operating >5 years                 | 55.1%                   |
| Annual sales < R100,000                        | 60.3%                   |
| Primarily local market                         | 53.1%                   |
| Full-time owner-managers                       | 65.3%                   |
| Part-time enterprise owners employed elsewhere | 15.2%                   |

<sup>a</sup>Note. Values reproduce the descriptive findings reported in the thesis; the table is presented here to make the article's platform-use interpretation transparent.

TABLE III. STRATEGIC INTERPRETATION OF PLATFORM FUNCTIONS

| Platform/function          | Interpretive role                                                    |
|----------------------------|----------------------------------------------------------------------|
| WhatsApp                   | Direct customer communication, service delivery and order processing |
| Facebook                   | Business pages, advertising and broader visibility                   |
| X (formerly Twitter)       | Public communication and information exchange                        |
| Instagram                  | Visual marketing and brand presentation                              |
| Advertising/promotion      | Primary outward-facing commercial application                        |
| Information sharing/search | Knowledge and market-information function                            |
| Market research            | Customer and market intelligence                                     |
| Networking/partnerships    | Business-to-business relationship development                        |

<sup>b</sup>Note. Interpretations are grounded in the thesis findings and discussion; they are not claims of causal platform effects.

Research contribution statement. The manuscript's principal contribution is empirical and contextual: it demonstrates that social-media adoption among

Johannesburg SMEs is strongly concentrated around practical communication functions and that platform choice should be interpreted through business purpose, organisational capacity and environmental demand. The study does not treat platform popularity as a proxy for digital maturity. Instead, it distinguishes visible platform use from deeper organisational integration and identifies the practical conditions that shape the latter.

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