

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

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ABSTRACT	ARTICLE DETAILS
Purpose. This study provides an exploratory descriptive audit of the public Instagram presence of domestic companies listed on the Dar es Salaam Stock Exchange (DSE) and compares visible follower counts with reported shareholder counts. Follower counts are interpreted as indicators of public audience scale rather than ownership participation. Design and data. A cross-sectional, company-level digital-trace design was applied to a census of 22 domestic DSE-listed companies. Instagram values were compiled during the June 2026 data-collection exercise from visible and publicly indexed profile records, and some original capture dates could not be verified. Shareholder counts came from the latest official company reports, with their company-specific reporting dates retained. The two measures are asynchronous; accordingly, the comparison is descriptive. The analysis used descriptive statistics, rankings, approximate scale multiples and sensitivity checks. Main findings. Identifiable accounts were located for 19 of 22 companies (86.4 per cent: 17 official corporate, two official brand-led), and 18 displayed follower metrics. Follower counts were strongly right-skewed (median 17,200; range 575 to 530,000), with most large values rounded. Restricted shareholder comparison. Shareholder-count records were identified for eight companies. Five date-qualified official-report records formed the principal comparison, and three date-unverified records were retained for exploratory analysis. Across the five the approximate audience-to-reported-shareholder multiple ranged from about 0.4 to 21.0. Rank ordering was sensitive to record inclusion and weakened after the exploratory records were incorporated. Limitations. The comparison rests on five availability-selected companies, and follower values are approximate. Contribution. The study contributes a provenance-documented company-level audit that distinguishes public digital visibility from investor-oriented communication, the latter remaining outside the scope of the measured dataset. KEYWORDS: Instagram; Digital-Trace Data; Corporate Digital Visibility; Public Audience Scale; Reported Shareholder Counts; Dar es Salaam Stock Exchange; Emerging Capital Markets	Published On: 03 July Available on: https://ijmir.com

1. INTRODUCTION

1.1 The global transformation of corporate communication

At the international level, digital platforms have reshaped the speed, accessibility and visibility with which listed companies make corporate information available, and firms now make deliberate choices about which channels to use to disseminate both voluntary and mandatory information (Jung et al., 2018). This change is additive rather than substitutive: annual reports, stock-exchange announcements, corporate websites and general meetings remain the load-bearing instruments of statutory communication, while platforms such as Instagram, Facebook, LinkedIn and X extend public reach without displacing the formal disclosure architecture. Because investors incur real costs in becoming aware of, acquiring and processing disclosures, the accessibility of corporate information is itself consequential (Blankespoor et al., 2020). A central distinction therefore separates statutory disclosure from public digital visibility, the latter concerning who can find and follow a company rather than what it is legally required to report.

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

The usefulness of digital corporate communication, however, varies across institutional and market environments, which makes emerging and African capital markets an important next level of analysis.

1.2 Listed companies and social-media visibility

Narrowing from corporate communication in general to listed companies, international evidence shows that public firms use social media as a channel for visibility and information dissemination, and that the content of investor-directed messages can carry capital-market-relevant information (Bartov et al., 2018; Jung et al., 2018). This evidence is important for what it does not show. The documented capital-market relevance attaches to message content and dissemination behaviour, not to the size of a follower base, and audience-level metrics such as follower counts index potential reach rather than investor engagement, disclosure quality, trust, investment intention or shareholder participation (Blankespoor et al., 2020; Nuseir & Qasim, 2021). Image-led platforms in particular are used by organisations chiefly to engage broad public audiences through visual content rather than to disseminate investor-directed disclosure (Dhanesh et al., 2022). Adoption is also uneven across firms and sectors, and account presence is a low threshold once most firms hold an account. Much of this evidence, however, comes from large, developed or highly liquid markets, whereas smaller African markets operate under different ownership structures, digital-access conditions and communication practices, so the international findings cannot be assumed to transfer directly.

1.3 African corporate digital communication

Across African corporate settings, digital and social-media use is expanding but remains uneven across regions, countries, regulatory environments, sectors and exchanges, so the continent should not be treated as a single market. Available peer-reviewed evidence indicates that corporate online communication has been studied mainly through website and report-based disclosure rather than platform audience scale: among Egyptian listed companies, the extent of internet risk disclosure increased with firm size and varied by sector (Khalil & Maghraby, 2017), and across nine sub-Saharan markets the strength of corporate governance, rather than the level of institutional ownership, was associated with environmental, social and governance disclosure (Anifowose, 2026). Closer to the present setting, governance-disclosure research in East Africa shows that board composition and executive influence shape the extent of corporate governance disclosure across regional listed firms (Fulgence et al., 2023). This evidence is concentrated in a few larger markets and in website, report and governance channels rather than image-led platforms, which motivates closer examination of East African settings, without assuming that regional exchanges are institutionally identical.

1.4 The East African context

East African exchanges operate within distinct national institutional and regulatory settings. Regional evidence is therefore informative but cannot be transferred automatically to the Tanzanian market. Peer-reviewed evidence specifically concerning the social-media visibility of East African listed companies remains limited within the reviewed literature, while much of the available regional research addresses website, annual-report or governance disclosure rather than platform audience scale. The communication practices observed within one East African market should therefore not be assumed to represent neighbouring exchanges. Tanzania requires country-specific examination within its own regulatory, ownership and digital-communication context.

1.5 The Tanzanian digital and capital-market context

Within Tanzania's developing capital market, digital access is expanding but remains a minority condition. Compiled industry figures for early 2025 report approximately 20.2 million internet users (about 29.1 per cent of the population) and about 6.75 million social-media user identities (about 9.7 per cent), with reported Instagram advertising reach of approximately 3.70 million, equivalent to about 5.3 per cent of the population (Kemp, 2025). These figures denote different concepts and are not interchangeable: internet users are individuals, social-media identities are de-duplicated platform identities, and the Instagram figure is an advertising-reach estimate rather than a count of active users, so social-media users represent a digitally connected segment rather than the whole population. The Dar es Salaam Stock Exchange (DSE), incorporated in 1996 and operational since 1998 under the Capital Markets and Securities Authority, listed 28 companies at the time of data collection, comprising 22 domestically incorporated firms and six cross-listed firms across a Main Investment Market Segment (MIMS) and an Enterprise Growth Market (EGM) (Dar es Salaam Stock Exchange, 2026). For the companies examined, publicly accessible shareholder counts were located mainly in company annual reports and official filings, and a continuously updated public company-level shareholder count was not identified during the data-collection process. Against this national background, the observable situation among domestic DSE-listed companies becomes the specific focus.

1.6 The observable problem among DSE-listed companies

At the level of domestic DSE-listed companies, the measured situation is uneven on three dimensions: identifiable Instagram account availability varies, publicly visible follower counts vary by nearly three orders of magnitude, and the public availability and timing of reported shareholder counts are inconsistent. A numerical difference between a company's follower count and its reported shareholder count is not, in itself, evidence of ineffective communication, because the two quantities describe different populations:

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

a large following may reflect customers rather than investors, and a small following does not prove ineffective investor communication. The study therefore measures public digital visibility and reported ownership scale, not investor-relations effectiveness, and treats their comparison as a descriptive scale audit.

1.7 Research gap

Four connected gaps follow from this funnel. At the global level, research has examined corporate social-media adoption, dissemination and market response, but follower-scale comparisons with formally reported ownership populations remain underexamined (Bartov et al., 2018; Blankespoor et al., 2020; Jung et al., 2018). Across African settings, the evidence is concentrated in a few markets and prioritises website disclosure, disclosure indices or broad adoption over platform audience scale (Anifowose, 2026; Khalil & Maghraby, 2017). For Tanzania specifically, the Instagram presence, account type and public audience scale of domestic DSE-listed companies have received limited empirical attention in the reviewed literature. In measurement terms, existing research rarely combines identifiable account presence, account classification, follower scale, reported shareholder count, source provenance, temporal quality and precision within a single company-level audit. The present study addresses these gaps descriptively rather than claiming that prior studies do not exist.

1.8 Objectives and research questions

The study pursues three objectives: to determine the prevalence and type of identifiable Instagram accounts among domestic DSE-listed companies; to assess variation in publicly visible Instagram audience scale across companies and market segments; and to explore how visible follower scale compares descriptively with reported shareholder count among companies with comparable public records. Three research questions correspond to these objectives.

1. To what extent, and through which account types, do domestic DSE-listed companies maintain identifiable Instagram accounts?
2. How does publicly visible Instagram audience scale vary across companies and between market segments?
3. Among companies with comparable public records, how does visible follower scale compare descriptively with reported shareholder count?

Consistent with the company-level, cross-sectional design, the study does not evaluate investor-relations effectiveness, investor attitudes or causal effects, which the dataset does not measure.

2. EMPIRICAL LITERATURE REVIEW

The empirical review follows the same global-to-local funnel as the Introduction but is analytical rather than contextual: it compares the populations, methods, variables, findings and limitations of prior studies and derives the specific gap the present study addresses. To avoid duplication, institutional and digital-access facts introduced above are not repeated here. The reviewed studies were located through a documented structured web-based and publisher-platform literature search using a general academic web search engine and publisher platforms on the open web, with Crossref and publisher pages used to resolve and verify DOIs and Google Scholar used for supplementary discovery only; the subscription databases Scopus, Web of Science, Business Source Complete and ProQuest were not accessed, so exact per-database retrieval counts are not available and are not reported. Inclusion required a peer-reviewed journal article with a resolvable DOI. The search was conducted iteratively during preparation and revision and confirmed in a final pass on 25 June 2026, which added a digital-trace data-validity study, a large-scale listed-company adoption study and a corporate-Instagram content-analysis study; in total it retained fourteen peer-reviewed, DOI-verified articles and did not identify a qualifying peer-reviewed study, through the documented search, directly examining Instagram account adoption and public follower scale among East African or Tanzanian listed companies. The platforms, representative search strings, screening decisions and DOI verification are reported in Tables S5 and S6.

2.1 Global empirical evidence

International firm-level studies establish that social-media activity can be informative for capital markets, yet consistently locate that informativeness in content and dissemination rather than in audience size. Analysing S&P 1500 firms, Bartov et al. (2018) found that the aggregate opinion of individual tweets before earnings announcements predicted firm earnings and announcement returns, while Jung et al. (2018) showed that the same firms disseminated strategically, being less likely to push earnings news to social media when results were poor. Reviewing the broader field, Blankespoor et al. (2020) framed disclosure accessibility through processing costs and cautioned that reach is distinct from use, and Nuseir and Qasim (2021) synthesised the investor-relations literature and concluded that platforms are used to disseminate information without establishing a measured effect on investor behaviour. These studies agree that platform activity matters mainly through informative content, differ in method between event-study, archival and review designs, and share two limitations for the present purpose: they concentrate on Twitter in large developed markets, and the reviewed studies did not treat follower scale as a meaningful dependent quantity. Large-scale descriptive evidence indicates that listed-company social-media adoption has been mapped chiefly on text-led platforms: across 21,319 listed companies on 41 European exchanges, Byrka-Kita et al. (2025) characterised Twitter/X adoption through account creation, follower numbers

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

and tweet frequency, again on a microblogging rather than an image-led platform. On the image-led side, Kim et al. (2021) content-analysed 7,540 official Instagram posts from 165 Fortune 500 companies across eleven industries and found that account use and public engagement varied widely and that many large firms did not fully use the platform, locating corporate Instagram research in large developed-market firms and at the level of post content and engagement rather than public follower scale in smaller markets. What remains unresolved is how these patterns appear in small African markets, on image-led platforms, and at the level of public audience scale.

2.2 Emerging-market evidence

Within emerging capital markets, the evidence base shifts from market reaction toward disclosure determinants under concentrated ownership, weaker analyst coverage and uneven digital access. In the Egyptian market, Khalil and Maghraby (2017) used content analysis of internet reporting by EGX-listed companies and found that larger firms and certain sectors disclosed more risk information online, locating online disclosure within firm characteristics rather than audience reach. The systematic review by Nuseir and Qasim (2021) similarly reported that social-media disclosure research clusters in a small number of Gulf and Asian settings. These emerging-market studies are institutionally closer to African exchanges than developed-market work, but they measure disclosure content and its determinants rather than the public audience scale that the present study examines.

2.3 African empirical evidence

Across African corporate settings, the verified evidence is concentrated in larger markets and prioritises disclosure measurement over audience scale. Using a two-step dynamic panel approach across nine sub-Saharan countries, Anifowose (2026) found that corporate governance strength was positively associated with environmental, social and governance disclosure, while the share of institutional ownership did not clearly moderate that relationship. Read together with the Egyptian evidence, African studies tend to examine websites, disclosure indices or governance disclosure, to focus on large firms, to use cross-sectional designs, and to omit public platform-audience and shareholder-scale comparisons. A further limitation is that findings from one African country transfer poorly to another, given differences in market size, ownership and digital infrastructure.

2.4 East African evidence

Narrowing to East Africa, the peer-reviewed evidence concerns corporate governance and report-based disclosure rather than platform audience scale. Examining listed firms across the East African Community, Fulgence et al. (2023) found that board size and board independence shaped corporate governance disclosure, and that the involvement of chief executive and chief financial officers on key board committees was associated with lower disclosure. This regional work establishes that disclosure practices vary with firm-level governance, but it addresses governance-document disclosure rather than the public Instagram presence, account type or follower scale that the present study examines, and so narrows the problem toward Tanzania without answering the research questions.

2.5 Tanzanian evidence

Within Tanzania, corporate-disclosure research has examined the content of company reporting at the Dar es Salaam Stock Exchange. Using a balanced-scorecard framework for DSE-listed companies, Ngole and Mabonesho (2023) found that the disclosure of operational performance varied with firm and industry characteristics, including industry profile, listing age and cross-listing. This work establishes that report-based disclosure among DSE-listed companies is uneven and structurally patterned, but it addresses the content of formal reporting rather than public platform visibility. The reviewed Tanzanian literature therefore does not provide a census-level account of Instagram presence, account type, follower scale and the temporal quality of reported shareholder counts among domestic DSE-listed companies, which is the descriptive space this study occupies.

2.6 Integrated empirical gap

Synthesising the funnel, international research shows that listed companies use social media for visibility and dissemination, with capital-market relevance attaching to content rather than audience size. Emerging-market studies show that platform adoption and disclosure accessibility vary with firm characteristics and institutional context. African evidence remains concentrated in selected markets and prioritises websites, disclosure indices and governance disclosure rather than image-led platform audiences. East African governance-disclosure research and Tanzanian report-based disclosure research narrow the problem geographically but do not examine listed-company Instagram visibility. Across these levels, the reviewed work does not integrate identifiable account presence, account type, public follower scale, reported shareholder count, source quality and temporal comparability within a single company-level audit, which is the descriptive space this study occupies.

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

Table 1. Global and Emerging-Market Empirical and Theoretical Studies

Author (year)	Context	Platform focus /	Method	Main finding and relevance
Spence (1973)	Theory	Signalling	Analytical	Signals resolve information asymmetry; lens for account presence
Connelly et al. (2011)	Theory	Signalling	Review	Signal observability and credibility conditions
Bartov et al. (2018)	United States	Twitter; markets	Event study	Tweet opinion predicts earnings and returns; content, not follower size
Jung et al. (2018)	United States	Twitter; dissemination	Archival	Firms disseminate strategically; larger audiences raise incentives
Blankespoor et al. (2020)	Developed markets	Processing costs	Review	Accessibility matters; reach is distinct from use
Byrka-Kita et al. (2025)	Europe (41 exchanges)	Twitter/X adoption	Descriptive; 21,319 firms	Maps account creation, follower numbers and tweet frequency; text-led platform
Kim et al. (2021)	United States (Fortune 500)	Instagram; corporate accounts	Content analysis; 7,540 posts	Official corporate Instagram use varies across industries; engagement, not follower scale
Khalil & Maghraby (2017)	Egypt	Internet disclosure	Content analysis	Online risk disclosure rises with firm size and sector
Nuseir & Qasim (2021)	Gulf / global	Social-media disclosure	Systematic review	Platforms disseminate information; behaviour effect not established

Note. All entries are peer-reviewed journal articles with DOIs confirmed on the publisher platform (see references). Theory entries inform the interpretive lens rather than the empirical comparison.

Table 2. African, East African and Tanzanian Empirical Studies

Author (year)	Country / region	Focus	Method	Main finding and gap addressed
Anifowose (2026)	Sub-Saharan Africa (9 countries)	Governance and ESG disclosure; ownership	Dynamic panel GMM	Governance raises ESG disclosure; institutional ownership not a clear moderator
Khalil & Maghraby (2017)	Egypt	Internet risk disclosure	Content analysis	Larger firms disclose more online; website rather than audience focus
Fulgence et al. (2023)	East Africa (EAC)	Corporate governance disclosure	Panel regression	Regional governance-disclosure evidence; does not establish institutional equivalence among the participating exchanges

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

Author (year)	Country region /	Focus	Method	Main finding and gap addressed
Ngole & Mabonesho (2023)	Tanzania (DSE)	Operational-performance disclosure	Balanced scorecard; content analysis	Disclosure varies with firm and industry characteristics; report, not platform, focus

Note. All entries are peer-reviewed journal articles with DOIs confirmed on the publisher platform (see references). The reviewed African, East African and Tanzanian evidence concerns governance, website or report-based disclosure; the reviewed studies did not examine listed-company Instagram presence, account type or follower scale, which is the descriptive space the present study occupies. Official market and digital-access sources are kept separate from this scholarly table.

3. INTERPRETIVE FRAMEWORK

3.1 Signalling theory as a limited interpretive lens

Signalling theory addresses situations in which one party holds information that another does not and may communicate observable signals about unobservable qualities (Connelly et al., 2011; Spence, 1973). It is used here only as a limited interpretive lens, not as a tested mechanism. Observable corporate signals that the dataset can speak to include identifiable account presence, account authentication, consistent corporate naming, corporate-website linkage and visible communication activity. Follower count is not treated as a deliberate corporate signal, because it is shaped partly by audience behaviour. A further implication, examined in the discussion, is that once account presence becomes near-universal, its value as a distinguishing signal declines.

3.2 Information asymmetry as motivation, not measurement

The information-asymmetry perspective is used only to explain why accessibility may matter, not as something the study measures. The study does not measure whether information asymmetry was reduced; follower scale indicates potential reach, not a change in the information distance between companies and external audiences.

3.3 Analytical Framework

The study is associational and cross-sectional, so the analytical framework is non-causal by construction. Figure 1 separates the substantive variables that are compared from the conditions that qualify the comparison. Instagram account adoption comprises account presence, account type and follower-metric availability. Account presence conditions whether a public follower value is available for observation. The two substantive scale variables that are actually compared are the public Instagram follower scale (the numerically converted visible follower value) and the reported shareholder count (the latest publicly reported shareholder count). Logarithmic versions of the two scale variables are used only as statistical transformations in the analysis and are not shown as conceptual indicators, and the cumulative post count is reported descriptively in the supplementary material rather than placed in the framework. These two are joined by an undirected connector rather than a directional arrow, because the design compares their scales descriptively and does not order them in time or assign one as a cause of the other. Two further boxes are kept distinct: contextual conditions (sector and market segment), and measurement-quality conditions (Instagram source type and metric precision, and the shareholder reporting date, record age, source quality and temporal comparability). The measurement-quality conditions qualify how the two scale variables are compared and are deliberately not shown as indicators of either scale, since a reporting date or a precision category measures data quality rather than the size of a following or a shareholder base. Table 3 sets out each analytical domain and its variables.

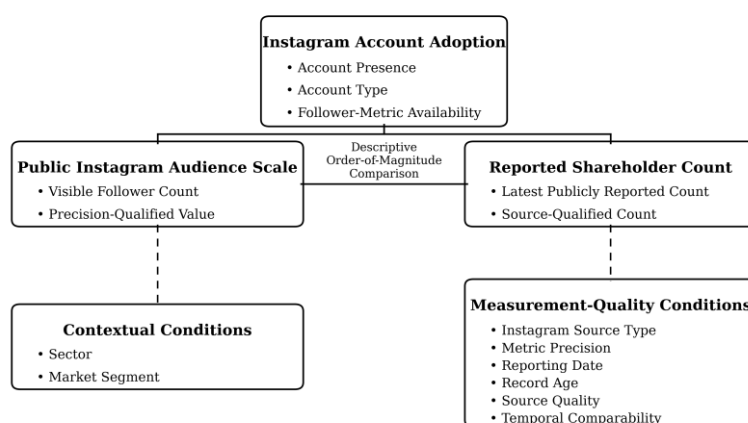


Figure 1. Analytical Framework for the Company-Level Digital-Trace Audit

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

Note. The framework organises observed company-level variables and comparison-quality conditions. The undirected connector represents descriptive comparison rather than causal influence.

Table 3. Analytical Domains and Variable Operationalisation

Analytical domain	Variable	Operational definition	Data source	Analytical role
Instagram account adoption	Account presence; account type; follower-metric availability	Whether an identifiable account exists; corporate or brand-led; whether a follower value is visible	Directly visible and publicly indexed Instagram profile records compiled during the June 2026 data-collection exercise	Descriptive census
Public Instagram Audience Scale	Visible follower value (log as transformation only)	Numerically converted visible follower count; its natural logarithm is used only as a statistical transformation	Public Instagram profiles (direct or indexed)	Substantive variable in RQ2 and RQ3
Reported Shareholder Count	Reported shareholder count (log as transformation only)	Latest publicly reported shareholder count; its natural logarithm is used only as a statistical transformation	Official company reports and filings	Substantive variable in RQ3
Contextual	Sector; market segment	Industry sector; MIMS or EGM listing segment	Dataset coding from official sources	Categorical context
Measurement-quality	Follower precision; source type; reporting date; record age; source quality; temporal comparability	Precision category; direct or indexed; reporting date; record age in months; official-source or approximate; date alignment	Provenance and source registers	Qualifies the comparison; not a substantive indicator

Note. Analytical domains group the measured variables by their role. The cumulative post count is reported as a historical account descriptor only and is held in the supplementary material rather than the framework; the follower value indexes audience reach, not engagement. The two scale variables are the only quantities compared in RQ3. Measurement-quality variables describe data provenance and comparability and are not treated as indicators of either scale. Variables were measured at a single time point, so growth, lagged or mediated quantities are not defined.

Formal directional hypotheses are not advanced. Because the company-level dataset measures audience scale rather than investor communication, and because the highest-quality shareholder subset contains only five companies, the analysis is framed through the three research questions, with a single exploratory comparison examined diagnostically: whether, among companies with comparable public data, companies with higher reported shareholder counts also tend to occupy higher positions in the follower-scale ranking. This comparison is treated as exploratory and descriptive rather than as a confirmable hypothesis.

4. METHODOLOGY

4.1 Research design

The study is quantitative, exploratory, non-experimental, cross-sectional, company-level and based on secondary, publicly observable digital-trace and corporate data. It is not longitudinal: Instagram account information was compiled during a single June 2026 data-collection exercise using directly visible and publicly indexed profile records, and the original capture date of each indexed record was retained where known and otherwise recorded as unknown, while shareholder counts retain their earlier company-specific reporting dates.

4.2 Population and analytical samples

The account-presence analysis is a census of the 22 domestic DSE-listed companies. The six cross-listed companies were excluded because their investor populations and communication strategies may span jurisdictions, reducing comparability. Three nested analytical samples follow from data availability: 18 companies with visible follower metrics, five companies with official-source shareholder records for the principal comparison (three primary-quality dated within twelve months and two secondary-quality dated thirteen to twenty-four months before the platform-data collection), and eight companies for the exploratory comparison. The five-company comparison is an availability-selected subset and is not a census or a random sample of the population.

4.3 Instagram account authentication

Accounts were authenticated through a documented decision hierarchy applied in order: a link from the official company website; a verified corporate identity; the official website shown in the profile; matching corporate contact details; consistent official branding; and a reference from another official company channel. Accounts meeting these criteria under the corporate name were classified as official corporate; those meeting them under a consumer brand owned by the listed company were classified as official brand-led. Where an account did not satisfy the hierarchy after company-name, brand-name, website and handle searches, it was classified as Account Not Located. Verification status was recorded only where confirmed. Account authentication and classification were conducted through a documented decision hierarchy by a single coder. Independent intercoder reliability was not established, and some classifications may therefore remain sensitive to researcher judgement.

4.4 Instagram metric provenance

Instagram account information was compiled during the June 2026 data-collection exercise from directly visible profiles and publicly indexed profile records. The retrieval period therefore refers to when the researcher compiled the evidence, not necessarily to when every underlying follower value originated; where the original capture date of an indexed value could not be verified, it was recorded as unknown and the value was not described as current, live or as of June 2026. For each located account the provenance register (Tables S1a and S1b) records the company name, DSE code, handle, full profile URL, account type, account status, authentication evidence, compilation date, displayed follower value, converted value, precision category and verification notes. Where the retained evidence did not permit direct and indexed sources to be distinguished, or did not retain a source date or a screenshot, that limitation was recorded explicitly rather than resolved by assumption. Public Instagram follower values were recorded as numerically converted observations and classified according to display precision and source provenance, using the categories unabbreviated displayed value, rounded displayed value, rounded lower-bound value, indexed value with unknown capture date, and unavailable. Unabbreviated values were not treated as exact, because platform values may change continuously and some records were retrieved from indexed sources with unknown original capture dates. Each handle was authenticated against the corresponding company's public identity, and the official handles for Tanzania Breweries Plc (@tblplc) and JATU Plc (@jatu_plc) have their corporate identity corroborated through an official corporate profile, official company channel or another independently accessible corporate source; for Tanzania Breweries the account is identifiable but its public follower and post metrics are not visible, which is recorded as account present with metrics unavailable rather than as an absent account. Because the underlying snapshots were obtained from publicly indexed profile information, the dataset does not separately certify, for every company, whether a value was viewed directly on the profile on the compilation date or retrieved from an index whose original capture date is unknown; values are therefore described as visible or indexed records rather than as certified same-day direct observations. These procedures respond to documented limitations of social-media trace data, which can carry biases at the point of collection and during processing and whose completeness is constrained by platform access conditions (Olteanu et al., 2019). This provenance limitation is carried into Section 9.

4.5 Shareholder-count comparability

For each shareholder observation, the source register (Tables S2a and S2b) records the company, count, reporting date, publication date, record age, source quality, temporal quality and analytical class, together with the complete source title, source type and official URL. The exact source wording, the shareholder definition (registered versus beneficial holders), the treatment of nominee or custodian accounts and the share-class coverage were not independently re-verified for this register and are therefore recorded as not specified rather than asserted; the counts are accordingly not assumed to be fully definitionally comparable across companies. Reporting dates differ across companies and from the Instagram observation, and this difference is reported rather than concealed; the comparability limitation is carried into Section 9.

4.6 Shareholder-record quality classification

Shareholder records were classified on two separate axes. Source quality concerns the authenticity of the document: official audited, integrated or statutory reports are treated as official-source records, whereas approximate or secondary figures are treated as exploratory. Temporal quality concerns the age of the record relative to the June 2026 Instagram data-collection exercise, retained as a distinct variable in months. A record is of high temporal quality when its reporting date falls within roughly twelve months, of

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

moderate temporal quality at thirteen to twenty-four months, and of low temporal quality beyond twenty-four months or when the date is uncertain. These recency bands are pre-specified pragmatic classifications developed for this audit to organise record recency, and do not represent externally validated data-quality thresholds. Combining the two axes, primary-quality records are official-source records of high temporal quality; secondary-quality records are official-source records of moderate temporal quality; exploratory-quality records are approximate or date-uncertain; and records for which a comparable count could not be verified are classed as missing. The strict comparison sample comprises the primary-quality records, the broad comparison sample adds the secondary-quality records to give the five official-source records, and the exploratory sample adds the three exploratory-quality records. Table 4 reports the classification with reporting dates, record ages, temporal quality and reasons.

Table 4. Shareholder-Record Source and Temporal-Quality Classification

Company	Count	Source	Reporting date	Months	Temporal quality	Class
Panel A. Date-Qualified Records						
NMB Bank	19,415	Integrated Annual Report 2025	2025-12-31	5.8	High	Primary
CRDB Bank	59,545	Integrated Annual Report 2025	2025-12-31	5.8	High	Primary
Tanzania Portland Cement	9,273	Audited Annual Report 2025	2025-12-31	5.8	High	Primary
Vodacom Tanzania	37,377	Annual Integrated Report 2025	2025-03-31	14.8	Moderate	Secondary
DCB Commercial Bank	8,197	Audited Annual Report 2024	2024-12-31	17.8	Moderate	Secondary
Panel B. Date-Unverified Exploratory Records						
JATU	1,863	DSE Filing	Date Unverified	Not Calculable	Low	Exploratory
Tanga Cement	15,000	DSE Company Profile	Date Unverified	Not Calculable	Low	Exploratory
National Investments	30,000	Secondary Company Profile	Date Unverified	Not Calculable	Low	Exploratory

Note. Source quality (document authenticity) and temporal quality (record age) are recorded on separate axes. The recency bands are pragmatic classifications for this audit and are not externally validated thresholds. Shareholder definitions were not uniformly specified across sources. The DCB 2024 record is retained as the latest available. Follower and shareholder measures are asynchronous and describe distinct populations.

4.7 Temporal alignment of platform and shareholder observations

The platform and ownership measures are asynchronous, and the design treats this explicitly. Instagram values were compiled during the June 2026 data-collection exercise. Shareholder counts relate to company-specific reporting dates, which differ because companies have different financial year-ends and publication schedules; among the five official-source records the reporting dates span 31 December 2024 to 31 December 2025. In this audit, company-level shareholder counts were located mainly in annual reports and official filings, and a continuously updated public count was not identified for every company. The comparison is therefore between the public follower value compiled during the June 2026 data-collection exercise and the latest publicly reported ownership figure for each company, not between two contemporaneous measures. Record-age variables and the temporal sensitivity analyses in Section 5.7 are used to constrain interpretation, and differences in ratios are not read as evidence of change over time, since repeated same-period observations are not available.

4.8 Missingness analysis

Because the availability of shareholder data was unlikely to be random, companies with official-source shareholder records, $n = 5$, were compared descriptively with the remaining companies, $n = 17$. The comparison considered market segment, sector composition, account presence and median public follower value. The five-company group comprised three primary-quality and two secondary-quality records. The analysis was descriptive and was used to assess whether the principal shareholder comparison was concentrated among companies with particular observable characteristics. The results are reported in Section 5.6.

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

4.9 Statistical approach

The analysis is primarily descriptive, using counts, percentages, medians, interquartile ranges, minima, maxima, rankings and scale ratios, with means, standard deviations and skewness reported where informative. Spearman rank coefficients are used descriptively to summarise the ordering among the companies with comparable records. Because the five-company and eight-company sets were availability-selected rather than randomly sampled, the coefficient is not interpreted as an estimate of a wider population relationship. Permutation probabilities are reported as supplementary diagnostics and are not interpreted as evidence concerning the wider DSE-listed population. Interpretation emphasises direction and magnitude rather than significance thresholds. Several sensitivity analyses were conducted to assess the dependence of the findings on data-quality and inclusion decisions, and are reported in Section 5.7. All analysis was conducted in Python (pandas, numpy, scipy).

4.10 Ethics

The study used only publicly accessible organisational information published by listed companies, the stock exchange and official reports. It did not involve human participants, interaction with individuals, the collection of private individual-level data, the identification of individual followers, the scraping of private accounts or the use of private platform analytics. Formal ethics approval was not sought.

4.11 Reproducibility

The reproducibility materials comprise the analysis-ready dataset, a codebook, the Instagram provenance register, the shareholder-source register, the statistical-analysis code, the figure-generation code and the numerical-verification output. The registers record, per company where retained, the June 2026 compilation period, the unknown source-date status of indexed follower values, the direct or indexed source classification, the shareholder reporting date and the report publication date, kept as separate fields. The analysis-ready dataset, codebook and supporting provenance materials are available from the corresponding author upon reasonable request, subject to platform and copyright restrictions. The materials have not been deposited in a public repository. Complete independent workflow reproduction has not been demonstrated at the time of submission.

Table 5. Variable Codebook

Variable	Definition	Measurement	Role
Panel A. Instagram and Context Variables			
account_present	Official or brand-led account located	Binary 1/0	Census outcome
account_type	Nature of located account	Corporate / brand-led / not found	Descriptor
follower_metric_available	Whether public follower value was visible	Binary 1/0	Availability flag
followers_numeric	Numerically converted public follower value compiled during the data-collection exercise	Integer	Audience scale
followers_precision	Precision and provenance category assigned to the public follower value	Unabbreviated displayed value / Rounded displayed value / Rounded lower-bound value / Indexed value with unknown capture date / Unavailable	Quality flag
posts_numeric	Public cumulative post count	Integer	Activity descriptor
market_segment	Listing segment	MIMS / EGM	Grouping (RQ2)
sector	Economic sector	Categorical	Grouping
Panel B. Shareholder and Derived Variables			
shareholder_count	Reported shareholder count as stated in the retained public source	Integer	Ownership-scale descriptor
shareholder_definition	Terminology used by the retained source to describe the reported shareholder figure	Registered / beneficial / accounts / unspecified / not verified	Comparability flag

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

Variable	Definition	Measurement	Role
shareholder_quality	Source-quality class	Primary / Secondary / Exploratory / Missing	Eligibility control
shareholder_as_of_date	Reporting date of shareholder count	Date	Temporal comparability
follower_to_shareholder_ratio	Followers divided by shareholders	Ratio	Derived comparison
shareholder_minus_followers	Shareholders minus followers	Signed integer	Derived comparison

Note. MIMS = Main Investment Market Segment; EGM = Enterprise Growth Market. Account type and follower-metric availability are recorded as separate variables, and precision and quality flags are retained in all analyses and never recoded to numeric values. Instagram precision categories describe how a public value was displayed or retrieved and do not imply exact measurement; shareholder records are described as official-source records, reflecting the authority of the retained document rather than verified definitional comparability across companies.

5. RESULTS

5.1 Data availability

The census comprises 22 domestic companies, and company codes and company names were unique across the census. Account presence and account type are complete for all 22. Follower metrics are visible for 18 companies, post metrics for 12, and any shareholder count for eight. All visible follower values were compiled in June 2026 from directly visible or publicly indexed profile records; the dataset does not separately certify, for any individual company, that a value was viewed directly on the collection date rather than retrieved from an index whose original capture date is unknown, so the values are not treated as certified same-day direct observations. By reporting recency, the eight shareholder records divide into three recent records dated within twelve months, two records thirteen to twenty-four months old and three date-uncertain records, with 14 companies missing a usable count. Figure 2 summarises account and follower-metric availability in Panel A and the shareholder-record analytical classes in Panel B; Table 6 gives the company-level profile.

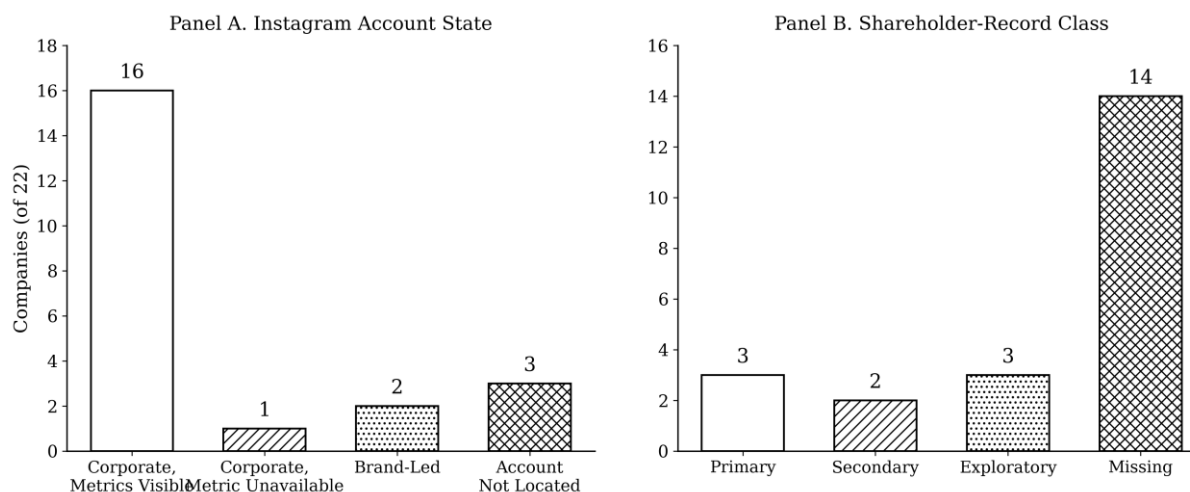


Figure 2. Instagram Account and Shareholder-Record Availability across the 22-Company Census

Note. Panel A presents mutually exclusive Instagram-account states. Panel B presents shareholder-record analytical classes derived from source and temporal quality.

Table 6. Company and Data-Availability Profile ($n = 22$)

Code	Sector	Segment	Account type	Followers	Shareholder Record Class
CRDB	Banking	MIMS	Corporate	424,000	Primary
DCB	Banking	MIMS	Corporate	2,900	Secondary
NMB	Banking	MIMS	Corporate	408,000	Primary

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

Code	Sector	Segment	Account type	Followers	Shareholder Record Class
VODA	Telecommunications	MIMS	Corporate	530,000	Secondary
TPCC	Cement	MIMS	Brand-led	17,200	Primary
NICO	Investment	MIMS	Corporate	713	Exploratory
TCPLC	Cement	MIMS	Brand-led	4,526	Exploratory
JATU	Agriculture/Inv.	EGM	Corporate	37,000	Exploratory
DSE	Securities Exchange	MIMS	Corporate	78,300	Missing
MBP	Banking	EGM	Corporate	20,000	Missing
PAL	Aviation	MIMS	Corporate	116,000	Missing
SWIS	Aviation Services	MIMS	Corporate	4,800	Missing

Table 6. Company and Data-Availability Profile (Continued)

Code	Sector	Segment	Account type	Followers	Shareholder Record Class
TBL	Beverages	MIMS	Corporate	Metric Unavailable	Missing
TOL	Industrial Gases	MIMS	Corporate	665	Missing
MKCB	Banking	EGM	Corporate	21,000	Missing
MCB	Banking	EGM	Corporate	12,000	Missing
MUCOBA	Banking	EGM	Corporate	575	Missing
AFRIPRISE	Investment	MIMS	Corporate	5,430	Missing
TCC	Tobacco	MIMS	Corporate	17,200	Missing
TTP	Agribusiness	MIMS	Not located	Account Not Located	Missing
SWALA	Oil and Gas	EGM	Not located	Account Not Located	Missing
YETU	Microfinance	EGM	Not located	Account Not Located	Missing

Note. “Followers” shows the visible follower value where one is shown; “Metric Unavailable” denotes an identifiable account for which the follower metric was not publicly visible in the retained record (TBL); “Account Not Located” denotes an account that was not located. Shareholder Record Class follows the Section 4.6 classification. Rows are ordered by shareholder record class then follower scale.

5.2 Instagram adoption

An identifiable account was located for 19 of the 22 companies (86.4 per cent): 17 official corporate accounts and two official brand-led accounts, the latter being Tanzania Portland Cement (through the Twiga Cement brand) and Tanga Cement (through the Simba Cement brand). For three companies a qualifying account was not located. One company, Tanzania Breweries Plc, maintained an identifiable official corporate account (@tblplc) whose public follower and post metrics were not visible, so account presence and metric availability are recorded separately. JATU Plc maintained an identifiable official corporate account (@jatu_plc) whose visible metrics were retained in the analysis. By segment, corporate accounts numbered 12 in MIMS and five in EGM, the two brand-led accounts were both in MIMS, and the three companies without a located account comprised one in MIMS and two in EGM. Table 7 reports adoption and the follower descriptive statistics.

5.3 Public audience distribution

Among the 18 companies with visible follower metrics, the distribution is strongly right-skewed (skewness 1.92). The median following is 17,200 (interquartile range 4,594.5 to 67,975), the minimum 575 and the maximum 530,000. The mean of 94,461.6 far exceeds the median, so the median and interquartile range are the preferred summaries. On the natural-log scale the mean is 9.67 and the standard deviation 2.15, with near-zero skewness (0.11), indicating approximate log-symmetry. Eleven of the 18 visible values are rounded public values and two are rounded lower-bound values, so the larger values in particular are approximate. The

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

five largest followings belong to Vodacom (530,000), CRDB (424,000), NMB (408,000), Precision Air (116,000) and the DSE itself (78,300). Figure 3 displays the ranking.

Table 7. Instagram Adoption and Audience Descriptive Statistics

Panel A: Adoption	MIMS	EGM	Total
Official corporate account	12	5	17
Official brand-led account	2	0	2
Account not located	1	2	3
Total companies	15	7	22
Panel B: Followers ($n = 18$) and posts ($n = 12$)	Followers	Log followers	Posts
Median	17,200	9.75	2,350
Interquartile range	63,380.5	2.65	5,801.2
Minimum	575	6.35	68
Maximum	530,000	13.18	13,975
Mean	94,461.6	9.67	3,997.2
Standard deviation	169,626.1	2.15	4,384.2
Skewness	1.92	0.11	1.30

Note. Statistics in the Log Followers column were calculated directly from the natural-log-transformed follower values. Figures 3 and 4 use base-10 logarithmic axes for visual presentation. Post counts are cumulative account totals rather than measures of recent posting frequency.

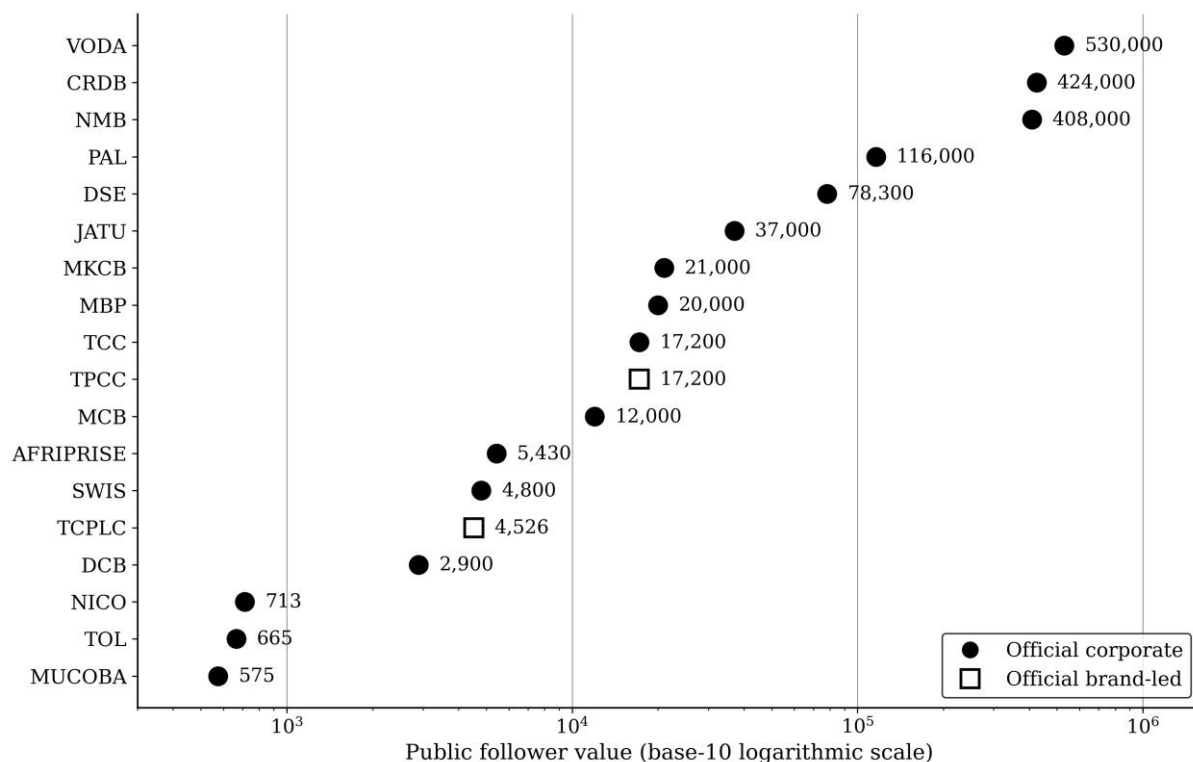


Figure 3. Public Instagram Audience Scale among Companies with Visible Follower Metrics ($n = 18$)

Note. Values are displayed on a base-10 logarithmic scale. Several follower values were publicly displayed in rounded form. The retained records did not permit company-level distinction between direct and indexed capture.

5.4 Segment comparison

Visible follower scale was compared between segments descriptively. The MIMS follower median (17,200; $n = 13$) and the EGM follower median (20,000; $n = 5$) were similar. Given the small and uneven group sizes and the availability-selected nature of the data, the comparison is reported as a descriptive observation only, and inferential testing was not applied to characterise it.

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

5.5 Principal shareholder-scale comparison

The principal comparison uses five companies with shareholder counts reported in official company reports or filings, comprising three primary-quality and two secondary-quality records (Table 4). Official-source status refers to the authority of the retained document and does not establish that shareholder definitions are equivalent across companies. The approximate audience-to-reported-shareholder multiple ranges from about 0.4 to 21.0. For four of the five companies the ratio exceeds one, meaning the public follower value compiled during the June 2026 data-collection exercise numerically exceeds the latest reported shareholder count; for DCB Commercial Bank the multiple is below one (about 0.4), the only case in which the reported shareholder count exceeds the following. The largest divergences are for NMB (about 21.0) and Vodacom (about 14.2). A ratio above one is not interpreted as successful communication; it is a numerical scale comparison between two differently dated population measures and does not establish overlap. The shareholder reporting dates span 31 December 2024 to 31 December 2025, with record ages from 5.8 to 17.8 months, while the follower values were available in the records compiled during the June 2026 data-collection exercise; the two are therefore asynchronous, as Table 8 makes explicit through separate date columns. All ratios and gaps were independently recomputed and matched the dataset to within floating-point precision. Figure 4 displays the comparison with each shareholder reporting date shown.

Table 8. Descriptive Audience and Reported-Shareholder Comparison

Company	Shareholders	Reporting date	Age (mo)	Public Follower Value	Approx. multiple	Gap (S-F)	Class
Panel A. Five Date-Qualified Records							
NMB Bank	19,415	2025-12-31	5.8	408,000	21.0	-388,585	Primary
CRDB Bank	59,545	2025-12-31	5.8	424,000	7.1	-364,455	Primary
Tanzania Portland Cement	9,273	2025-12-31	5.8	17,200	1.9	-7,927	Primary
Vodacom Tanzania	37,377	2025-03-31	14.8	530,000	14.2	-492,623	Secondary
DCB Commercial Bank	8,197	2024-12-31	17.8	2,900	0.4	+5,297	Secondary
Panel B. Three Date-Unverified Exploratory Records							
JATU	1,863	Date Unverified	Not Calculable	37,000	19.9	-35,137	Exploratory
Tanga Cement	15,000	Date Unverified	Not Calculable	4,526	0.3	+10,474	Exploratory
National Investments	30,000	Date Unverified	Not Calculable	713	<0.1	+29,287	Exploratory

Note. Approximate multiple = visible follower count divided by reported shareholder count. Follower values and shareholder counts refer to different observation dates and distinct populations. Panel A contains five records with verified reporting dates. Panel B contains three date-unverified exploratory records. Rounded follower values limit numerical precision.

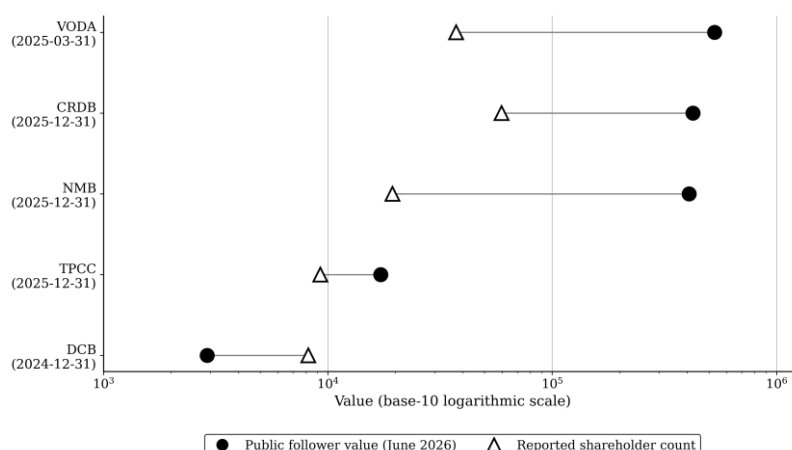


Figure 4. Reported Shareholder Counts and Public Instagram Follower Values for Five Date-Qualified Records

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

Note. Shareholder counts relate to company-specific reporting dates, whereas follower values were compiled on 25 June 2026. The measures are asynchronous and represent distinct populations. The retained Instagram records did not permit company-level distinction between direct and indexed capture.

5.6 Missingness assessment

Companies with official-source shareholder records, $n = 5$, were compared descriptively with the remaining companies, $n = 17$, using market segment, sector composition, account presence and median public follower value. The five-company official-source group consisted of three banks, one telecommunications company and one cement producer, all listed on MIMS, and had a higher median public follower value than the remaining companies (408,000 versus 12,000). All five maintain an account (five of five, versus 14 of 17), and all are MIMS-listed (versus 59 per cent of the 17 other companies). The availability pattern is therefore uneven across market segment, sector and audience scale, and the principal comparison over-represents MIMS-listed companies in banking, telecommunications and cement. A firm-size variable such as assets, revenue or market capitalisation was not recorded, so these companies are not characterised as larger except in the directly observed sense of a higher median public follower value. This pattern is itself an empirical observation about the public availability of ownership information rather than evidence of any regulatory non-compliance.

5.7 Sensitivity analyses

Seven sensitivity checks were applied. First, adding the three exploratory records to form an eight-company set weakened the descriptive rank coefficient from $\rho = 0.90$ among the five date-qualified official-report records to $\rho = 0.45$ among eight companies, indicating that the observed correspondence was sensitive to the inclusion of lower-quality shareholder records; the exact permutation probability for the eight-company coefficient was $p = .27$ and is reported as a supplementary diagnostic only. Second, restricting the comparison to the three primary-quality records dated within twelve months (CRDB, NMB, Tanzania Portland Cement) leaves too few observations for even a diagnostic correlation, so only the ratios are reported (7.12, 21.01 and 1.85); the qualitative pattern of followers exceeding shareholders is unchanged. Third, excluding records older than eighteen months does not remove any of the five date-qualified records, because the oldest, DCB, is 17.8 months, so the five-company result is unchanged on that threshold. Fourth, excluding records older than twenty-four months likewise retains all five. Fifth, excluding the date-uncertain records leaves the five date-qualified records, which is the broad sample already reported. Sixth, excluding the Dar es Salaam Stock Exchange itself, an atypical self-listed entity, leaves the follower median unchanged at 17,200 ($n = 17$). Seventh, excluding the two brand-led accounts and analysing corporate accounts only ($n = 16$) raises the follower median slightly to 18,600 with the minimum and maximum unchanged. A direct-versus-indexed comparison of follower values was not feasible, because the dataset does not separately certify direct from indexed capture per company; this is recorded as a provenance limitation rather than estimated. Across these checks the direction of the descriptive pattern remained broadly similar: the public follower value compiled during the June 2026 data-collection exercise exceeds the latest reported shareholder count for most companies in the date-qualified comparison set, and the leave-one-out diagnostic retained a positive direction, although each recomputation contained only four companies. This statement is a descriptive numerical comparison and does not imply common measurement dates, population overlap or communication effectiveness. A leave-one-out recomputation kept Spearman's ρ between 0.80 and 1.00 across all five omissions, with the sign unchanged (Table S4); because each omission leaves only four companies, these coefficients describe directional stability within the five-company set rather than statistical robustness, and probability values are reported descriptively rather than interpreted inferentially. The coefficient nonetheless remained sensitive to the inclusion of lower-quality shareholder records, weakening to $\rho = 0.45$ once the three approximate records were added.

5.8 Findings summary

Instagram adoption was widespread among the domestic DSE-listed companies. Account use was predominantly organised through official corporate accounts. Public audience scale was highly concentrated, with several of the largest follower values recorded by telecommunications, banking and aviation companies. Usable shareholder records were scarce and unevenly available across the census. The principal comparison was therefore restricted to five date-qualified official-report records, among which the visible follower value compiled during the June 2026 data-collection exercise exceeded the reported shareholder count in four of five cases. The comparison remained descriptive, because the two measures represented different populations and different reporting dates.

Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

Table 9 records the exploratory diagnostics and their interpretive limits.

Table 9. Statistical and Sensitivity Summary

Diagnostic	Result	Sample	Interpretive limit
Rank correspondence, date-qualified records	Spearman's $\rho = 0.90$	$n = 5$	Positive rank correspondence within the observed five-company subset
Rank correspondence after adding exploratory records	Spearman's $\rho = 0.45$	$n = 8$	Coefficient weakened after lower-quality records were included
Follower median excluding DSE	17,200 (unchanged)	$n = 17$	Not driven by DSE
Follower median after excluding brand-led accounts	18,600, compared with 17,200 in the full follower sample	$n = 16$	Limited change in the median after excluding brand-led accounts
Ratio range (date-qualified)	about 0.4 to 21.0	$n = 5$	Descriptive scale comparison only
Date-qualified availability	5 of 22; all MIMS	census	Concentrated among MIMS-listed companies

Note. Spearman coefficients are reported as descriptive summaries of rank correspondence among the observed companies. The comparison groups were determined by public-data availability rather than probability sampling. Supplementary exact permutation probabilities are provided for transparency and are not interpreted as evidence concerning the wider DSE-listed population; the supplementary exact permutation probability for the eight-company coefficient is $p = .27$.

6. DISCUSSION

6.1 Principal descriptive findings

Two principal descriptive patterns emerged. Instagram account adoption is high among domestic DSE-listed companies, and public audience scale is extremely unequal, spanning nearly three orders of magnitude and concentrated in a small set of companies. Several of the largest recorded follower values belonged to telecommunications, banking and aviation companies, and the organisational and market characteristics underlying this pattern were not measured. These patterns describe platform visibility, not investor communication.

6.2 Visibility is not investor communication

Account presence and follower scale do not establish that a company conducts investor-oriented communication. The dataset measures whether an identifiable account exists and how large its public audience is, not the investor relevance, timeliness, accessibility or responsiveness of what is communicated. A company with a large following may devote little of its content to investors, and a company with a small following may communicate effectively with its shareholder base through other channels.

6.3 Sector and consumer orientation

Telecommunications, banking and aviation companies recorded several of the largest public follower values in the dataset. The study did not measure customer-base size, consumer orientation, marketing intensity, service reach or audience composition. The observed sector pattern should therefore be treated as descriptive rather than explanatory. Future research could test whether company size, customer-market exposure, communication strategy or sector characteristics are associated with public follower scale.

6.4 Why follower and shareholder populations differ

Several unmeasured organisational, ownership and audience characteristics could contribute to the numerical differences between public follower values and reported shareholder counts. The present dataset cannot determine which, if any, explains an individual company-level pattern. Potential factors such as ownership structure, shareholder-definition practices, audience composition, organisational size and communication strategy require direct measurement in future research. They are not treated as explanations established by this study. The exploratory set illustrates the range: National Investments pairs a comparatively large reported shareholder base with a very small audience, whereas the largest banks and the telecommunications company pair moderate shareholder bases with very large audiences.

6.5 Asynchronous measurement

A defining interpretive constraint is that the platform and ownership measures are asynchronous. The analysis compares public follower values compiled during the June 2026 data-collection exercise with the latest publicly reported company-specific ownership figures, which relate to different reporting dates spanning 31 December 2024 to 31 December 2025. In the present audit, company-level shareholder counts were located mainly in annual reports and official filings, and a continuously updated public count was not identified, so a contemporaneous comparison is not available for these companies. A consequence is that the follower-to-shareholder ratio mixes the follower values available in the retained direct and indexed records with an ownership measure that is between roughly six and eighteen months old for the official-source records, and of uncertain date for the exploratory records. A difference in ratios across companies therefore cannot be read as evidence of growth or decline in either quantity, because repeated same-period observations do not exist. The ratio is meaningful only as a descriptive scale comparison at the dates stated.

6.6 Data availability as a finding

The scarcity and uneven timing of public shareholder counts is itself an empirical result. Official-source records existed for only five of 22 companies, all of them MIMS-listed firms, and the records that did exist carried differing reporting dates. This limited and inconsistent public availability of ownership information constrains any company-level comparison and is reported here as a transparency observation, without inferring regulatory non-compliance.

6.7 Comparison with prior research

The high adoption rate is consistent with research documenting widespread corporate social-media presence, and the caution against reading audience metrics as investor behaviour aligns with the disclosure-processing-cost literature, which treats accessibility as relevant to attention while distinguishing reach from use (Blankespoor et al., 2020). The near-universality of account presence also illustrates a limit of the signalling lens (Connelly et al., 2011; Spence, 1973): when almost every firm holds an account, presence ceases to be a distinguishing signal. The distinction this study draws between audience scale and investor communication is reinforced by firm-level evidence in which capital-market relevance attaches to the content and strategic dissemination of social-media messages rather than to the size of a follower base (Bartov et al., 2018; Jung et al., 2018); a large following, as documented here, therefore cannot be read as investor communication. This is also consistent with systematic review evidence that social-media corporate disclosure research and practice remain concentrated in developed and Gulf markets, leaving smaller African exchanges comparatively underdocumented (Nuseir & Qasim, 2021), a gap the present census-level audit of a Tanzanian listed population helps to address, alongside related online-disclosure evidence from another emerging-market setting (Khalil & Maghraby, 2017).

6.8 Interpreting the five-company association

Within the five date-qualified official-report records, the ordering of reported shareholder counts and public follower values showed positive rank correspondence within the observed five-company subset, with $\rho = 0.90$. The coefficient describes only these five availability-selected companies. Its magnitude fell to $\rho = 0.45$ when three lower-quality shareholder records were included, indicating sensitivity to data-quality and inclusion decisions. Although the coefficient remained positive in leave-one-out calculations, each recalculation contained only four companies and does not establish statistical robustness or a wider market relationship.

7. CONTRIBUTIONS

The contributions are deliberately proportionate to the data. Conceptually, the study distinguishes public digital visibility from investor-oriented communication and shows that the two should not be conflated. Theoretically, rather than claiming to validate or extend signalling theory, the results offer a context-specific illustration of the limited informational value of account presence when adoption is widespread. Methodologically, the study proposes a transparent procedure for documenting and evaluating temporal non-equivalence between dynamic platform metrics and periodically reported shareholder figures: provenance is recorded, reporting dates are preserved, source quality and temporal quality are assessed on separate axes, and sensitivity analyses show how results depend on date alignment. It also proposes explicit account-authentication rules, transparent treatment of rounded public metrics, and a clear separation of census-level visibility analysis from restricted ownership comparisons. These procedures are proposed rather than validated, and their performance should be tested in further work. Empirically, it provides a descriptive company-level audit of the domestic DSE-listed population. The documented structured search located related work on global and emerging-market social-media disclosure and on African, East African and Tanzanian governance and report-based disclosure, but identified limited direct examination of Instagram account adoption and public follower scale among listed companies in East African and Tanzanian settings; first-study status is not claimed, and the contribution is framed as addressing an underexamined descriptive space.

8. PRACTICAL AND POLICY IMPLICATIONS

8.1 Implications directly supported by the findings

The audit supports several practical points. Clearly identifiable official accounts and links from corporate websites can assist account authentication and reduce uncertainty when external users attempt to locate an organisation's official profile, since account identification required the application of multiple authentication criteria. Of the 22 companies, 19 had an identifiable account (17 official corporate and two official brand-led, the latter operating under a product-brand name rather than the corporate name), the corporate identity of two further handles was corroborated through documented official evidence, and for three a qualifying account was not located; the dataset does not separately record, for each company, which single criterion established authentication. Consistent corporate names, website links and contact details made official-account identification more straightforward during the authentication process used in this study. Shareholder information should be publicly traceable and clearly dated, with the financial-reporting date distinguished from the publication date, given how scarce and inconsistently dated usable records proved to be; more consistent and clearly dated disclosure of shareholder counts is offered as a research-informed recommendation rather than as an existing legal requirement. Finally, public platform metrics should be interpreted cautiously, because they are approximate and measure audience rather than ownership or communication quality.

8.2 Broader recommendations informed by the literature

The findings support a limited policy consideration rather than a prescriptive regulatory conclusion. Regulators, the exchange and listed companies may consider whether authenticated corporate profiles can link users more clearly to formal disclosures and existing investor-information resources. Such linking could assist users in distinguishing general public communication from formal investor information. Broader initiatives concerning digital-disclosure rules, preservation of platform communications, investor-education programmes or mandatory social-media standards require separate legal, institutional and stakeholder analysis. The present study does not establish the need, design, effectiveness or regulatory feasibility of those initiatives. Nothing here implies that listed companies should disclose material information on Instagram before formal disclosure through the DSE; the ordering of formal disclosure should be preserved.

9. LIMITATIONS AND FUTURE RESEARCH

The most consequential limitation is temporal. The Instagram and shareholder measures are asynchronous: Instagram account information was compiled in June 2026, whereas shareholder counts relate to company-specific reporting dates that vary across financial years, from 31 December 2024 to 31 December 2025 for the official-source records and uncertain dates for the exploratory records. The ratio therefore compares differently dated population measures and must not be interpreted as a contemporaneous alignment indicator; an observed ratio compares the public follower value available in the retained record during the June 2026 data-collection exercise against an earlier company-specific shareholder count, and shareholdings may have changed after the reporting date. For indexed follower records, the original capture date could not always be verified, so the temporal difference may be greater or less than the retrieval period alone suggests. Compounding this, annual-report publication lags the reporting date, follower counts change continuously, some follower values derive from indexed records of unknown original capture date, and a continuously updated public company-level shareholder count was not identified for every company during the data-collection process, so the asynchrony cannot be removed with the present data.

Further limitations apply. The principal comparison rests on only five companies, and shareholder-data availability is uneven with respect to sector, market segment and audience scale. Shareholder definitions could not be confirmed as harmonised across companies because the retained sources did not consistently specify registered versus beneficial holders, nominee-account treatment or share-class coverage. Follower values are approximate, with several rounded or lower-bound. Some followers may be international, non-investor, inactive, duplicate or automated accounts. The dataset codes neither investor-oriented content nor engagement quality, and it does not incorporate company-size and customer-base controls. The follower-to-reported-shareholder ratio is not anchored to a theoretical parity benchmark and is mathematically dependent on the follower count it incorporates. The census includes the DSE itself, an atypical self-listed entity, and two brand-led accounts whose audiences may be customer-oriented. Generalisability beyond the domestic DSE-listed population is limited, and the design does not support causal inference.

Future research should add post-level coding of investor-oriented content, track followers longitudinally, build company-month panels, match DSE disclosures to platform communication, measure disclosure lag, compare exchanges across countries, and incorporate company-size and customer-base controls. Such designs would allow the question of whether these accounts function as investor-relations channels to be addressed directly, which the present company-level audit cannot.

10. CONCLUSION

Addressing the first research question, identifiable Instagram accounts were widespread among the domestic DSE-listed companies, and account use was predominantly organised through official corporate accounts, with a smaller number of official brand-led accounts and a few companies for which a qualifying account was not located.

Addressing the second research question, public Instagram audience scale was highly uneven and concentrated in a small number of companies, while the observed MIMS and EGM follower medians were broadly similar.

Addressing the third research question, among the small set of companies with comparable records, the visible follower values compiled during the June 2026 data-collection exercise exceeded the latest reported shareholder counts in most cases, expressed as an approximate order-of-magnitude comparison rather than as a precise relationship. Because the follower and shareholder measures relate to different populations and to different reporting dates, and because usable ownership records were scarce and unevenly available, this comparison is descriptive only and does not establish a current or live follower-to-shareholder alignment. The findings support a clear distinction between corporate digital visibility and digital investor communication, and determining whether these accounts function as investor-relations channels would require repeated same-period, post-level analysis of content, timing, accessibility and responsiveness, which lies beyond the present company-level audit. This study demonstrates that listed-company platform visibility can be audited systematically, although its interpretation requires strict separation of account adoption, public audience metrics, reported ownership records, source provenance and temporal comparability.

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Instagram Adoption, Public Audience Scale and Reported Shareholder Counts among Domestic DSE-Listed Companies: A Descriptive Digital-Trace Audit

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