

Factors Attracting Foreign Direct Investment under Digital Transformation in Arab Countries: A Synthesis of Recent Econometric Evidence and International Reports (2024–2026)

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Abstract:

This study investigates digital transformation as a sovereign benchmark for attracting Foreign Direct Investment in the Arab region, focusing on the shift from traditional determinants to digital locational advantages. The research problem examines the extent to which digital maturity catalyzes capital inflows amidst a regional digital divide. The objective is to evaluate current trends and provide a policy roadmap for economic diversification. A descriptive-analytical methodology was employed, involving the evaluation of data and statistical information collected during the period (2024–2026) from several international reports (International Telecommunication Union, United Nations Development Program) and the analysis of modern standard economic models. Key tools include benchmarking and concentration analysis. Results indicate that high-quality e-government services significantly reduce transaction costs, attracting 80% of regional FDI to digitally mature states. However, a "digital paradox" exists where quantitative mobile penetration alone fails to incentivize productive investment. Strategic focus must shift to qualitative, production-oriented digital infrastructure.

Key Words: FDI Attractiveness, Digital Transformation, Arab Region, E-government Maturity, ICT Infrastructure.

JEL Classification : F21, O33, O53, C23.

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Introduction:

The global economic landscape is currently witnessing a profound structural shift, as the rapid evolution of digital technologies and the integration of the Fourth Industrial Revolution redefine the foundations of national competitiveness. Historically, the attractiveness of a nation for Foreign Direct Investment (FDI) was largely determined by tangible assets, such as the abundance of natural resources, the size of the domestic market, and the availability of low-cost physical labor. In this contemporary era, however, the traditional focus on physical geography has been superseded by a new paradigm where digital readiness serves as the primary sovereign benchmark for international capital. For Arab countries, particularly those seeking to transition away from hydrocarbon dependency, digital transformation is

no longer a peripheral development goal but a core strategic necessity for integrating into Global Value Chains (GVCs). This transformation is essential for fostering economic resilience and ensuring long-term sustainability in an increasingly interconnected global economy.

Despite the significant investments made by various Arab governments in technological upgrades, the actual responsiveness of FDI to these digital mechanisms remains highly uneven across the region. The Arab world is entering a critical stage of digital development, characterized by the rapid expansion of connectivity and the increasing reliance on data-driven solutions to reshape public and private services. Leading economies in the Gulf region are making significant strides toward creating knowledge-based societies that prioritize human-centric innovation. Nevertheless, a substantial gap remains in understanding how the "digital divide" the disparity between high-income states and developing economies in North Africa and the Levant-influences the locational choices of multinational enterprises. The primary challenge is to determine whether the mere expansion of infrastructure translates into a tangible "pull factor" for high-value investment or if it remains confined to consumer-oriented activities.

Research problematic: The core research problem addressed in this study is: To what extent do digital transformation indicators, specifically e-government maturity and qualitative ICT infrastructure, act as decisive catalysts for attracting FDI in Arab countries?

This central inquiry seeks to determine if current digital policies are sufficiently robust to mitigate the risks associated with global economic shocks and oil price volatility. Furthermore, the study investigates the existence of a "digital paradox," wherein the quantitative growth of digital access does not necessarily result in a corresponding increase in high-quality, productive investment. By examining the latest evidence from the (2024–2026) period, this research identifies the missing links between technological advancement and the effective attraction of international capital.

Research hypotheses: This study is guided by two primary hypotheses that reflect the evolving nexus between digitalization and investment:

Hypothesis 1: There is a statistically significant positive relationship between the maturity of digital governance (e-government) and long-term FDI inflows, as digital efficiency reduces institutional bureaucracy and transaction costs.

Hypothesis 2: The impact of digitalization is mediated by qualitative utilization rather than mere quantitative penetration, suggesting that global investors prioritize "Intelligent Systems" and advanced data capabilities over basic connectivity scores.

Methodology: To test these hypotheses, the researcher adopts a Descriptive-Analytical Methodology, which provides the primary framework for defining and evaluating the complex interaction between digital variables and capital flows. Specifically, the researcher employs a Comparative Evaluation of Secondary Data, synthesizing raw data and findings from the latest international reports published between 2024 and 2026. This approach allows the researcher to build upon the empirical foundations laid by previous literature while providing a real-time

assessment of the Arab investment climate that transcends historical datasets. By integrating qualitative insights with quantitative indicators, the methodology ensures a comprehensive understanding of the current digital-investment nexus from a holistic perspective.

Research tools: The primary tools utilized in this study include Deductive Benchmarking and Concentration Analysis to map the relationship between digital readiness and regional capital distribution. The researcher also uses Multiplier Inference to quantify the economic returns of qualitative digital transformation in high-performing markets. A crucial aspect of the researcher's toolkit is the Meta-Synthesis of Previous Empirical Evidence; rather than merely presenting isolated results, the researcher leverages the conclusions of earlier econometric studies as a theoretical benchmark to refine the variables analyzed in the current context. This enables the researcher to distinguish between "consumerist" digital usage and "productive" digitalization, ensuring that the final evaluation of (2024-2026) indicators is grounded in validated long-term trends while focusing on the most recent global shifts.

I. Literature review:

1. Previous empirical findings:

To establish a solid scientific foundation, it is necessary to review the results of previous econometric studies that have quantitatively measured the relationship between digital transformation and FDI. These studies serve as the empirical background upon which the researcher builds the current analysis.

1.1. Ramdani (2026); the dynamics of foreign direct investment response to digital transformation mechanisms in Arab countries: an econometric study (2004-2024):

This study analyzed a panel of nine Arab countries (Algeria, Tunisia, Morocco, Egypt, Jordan, Saudi Arabia, UAE, Qatar, and Kuwait) for the period 2004-2024 using the Pooled Mean Group (PMG) estimator. The findings established a definitive long-run equilibrium relationship, confirming that the E-government Index (EGI) is a significant positive driver of FDI inflows. Specifically, a 1% improvement in digital governance efficiency leads to a measurable increase in investment attractiveness by mitigating institutional friction. However, the study also highlighted a "digital paradox," as mobile subscriptions exhibited a negative long-run coefficient (-0.013), suggesting that quantitative saturation without specialized productive applications fails to incentivize high-value industrial investment.

1.2. Boukezata (2024); impact of information and communication technology (ICT) on foreign direct investment (FDI) in the OIC countries:

Broadening the analytical scope to include 21 countries within the Organization of Islamic Cooperation (OIC), Boukezata (2024) employed a Panel Vector Error Correction Model (VECM) to examine data from 1998 to 2021. This study concluded that ICT indicators, internet usage, and telephone subscriptions are primary long-term determinants of FDI. A crucial finding was that while the long-run impact of ICT is statistically significant and positive, the short-run effect remains

insignificant across the sampled countries. This suggests that digital infrastructure requires a "gestation period" before it can effectively influence the locational decisions of foreign firms seeking efficiency.

1.3. Belouafi and foudou (2025); the impact of digital transformation on attracting foreign direct investment to Algeria during (1993-2022):

In the specific national context of Algeria, Belouafi and Foudou (2025) utilized an ARDL Bounds testing approach to measure the impact of digitalization between 1993 and 2022. The study found that fixed telephone subscriptions had a statistically significant positive impact on industrial FDI (where a 1% increase led to a 0.213% increase in FDI to GDP) compared to mobile metrics. The authors interpreted this as an indication that industrial investors in Algeria prioritize the reliability of stationary infrastructure over mobile access for long-term production. Conversely, internet subscriptions showed a slight negative impact (-0.057%), linked to the "consumer-heavy" nature of usage which lacked integration with industrial production at that time.

1.4. Huong (2025; Digital transformation as a catalyst for foreign direct investment: evidence from an emerging economy:

Additional literature underscores that the impact of digital transformation is not uniform and is often mediated by institutional quality. Huong (2025) highlights that digitalization functions as a catalyst only when supported by robust regulatory frameworks. In the Arab world, the performance gap between the GCC and other Arab nations remains a barrier. While GCC states have reached saturation in basic connectivity, other nations are still transitioning toward high-speed broadband. This explains why foreign investors are increasingly gravitating toward "intelligent ecosystems" in the Gulf, while other Arab regions experience a more sluggish response.

2. Conceptual definitions of study variables:

Before analyzing the dynamics of investment attraction, it is essential to establish a precise conceptual framework for the study's primary variables. Defining Foreign Direct Investment (FDI) and Digital Transformation (DT) from an institutional and operational perspective provides the necessary foundation for the subsequent theoretical and empirical evaluation.

2.1. Defining Foreign Direct Investment (FDI):

Foreign Direct Investment is conceptualized as a vital instrument for transferring capital flows and real resources across national borders, particularly during the foundational stages of enterprises. From an operational standpoint, FDI manifests as an equity participation by a firm in the ownership structure of another cross-border entity, either through the establishment of a foreign branch (Greenfield Investment) or through Acquisition Strategies (Bertrand, 1997, p. 91) Unlike portfolio investment, FDI possesses a cumulative nature aimed at deepening the capital stock of the host country by adding productive assets such as machinery and specialized equipment.

Academic convention and international standards typically set the ownership threshold at 10% or more of total assets to ensure that the foreign investor can

exercise management and voting rights effectively (Hess & Ross, 1997, p. 490). Furthermore, the United Nations Conference on Trade and Development (UNCTAD) provides the institutional framework for this activity, defining it as a long-term economic relationship reflecting a "lasting interest and control" by a resident entity in one economy over an enterprise resident in another economy (UNCTAD, 2009, p. 243). In the context of Arab economies, FDI is not merely a source of capital but a critical channel for technology transfer and the mitigation of internal financing gaps.

2.2. Conceptualizing Digital Transformation (DT):

The concept of digital transformation has evolved from a simple technological upgrade to a fundamental shift in economic operational models. It is defined as a process that relies essentially on technical solutions to enhance "Value Added" within an organization or a national economy (Westerman, 2014, p. 39). From a structural impact perspective, digital transformation is aimed at improving an entity (whether a government agency or a private firm) by triggering significant changes in its properties and fundamental functions. This is achieved through the comprehensive functional integration of information technology, computing, and modern communication technologies (Vial, 2019, p. 118).

In the Arab region, this transformation is often evaluated through three interrelated layers: the physical infrastructure layer (connectivity), the data capture and trust layer (security), and the intelligent systems layer (AI and Cloud applications) (UNDP, 2025, p. 12). Consequently, digital transformation serves as the modern "Sovereign Benchmark" for competitiveness, where the maturity of a nation's digital ecosystem determines its ability to integrate into Global Value Chains (GVCs). This transformation is particularly critical for oil-dependent Arab states, as it provides the technical architecture necessary for economic diversification away from hydrocarbon volatility.

II. Theoretical framework; the channels of digital influence on capital attractiveness:

The theoretical foundation of this study establishes the mechanisms through which technological advancement is converted into economic magnetism. By examining established economic paradigms, the interaction between a nation's digital readiness and its ability to capture global capital can be systematically understood through the lens of modern investment theories.

1. Structural metamorphosis of the eclectic paradigm (OLI Framework):

The traditional conceptualization of international production, governed by John Dunning's OLI framework, is undergoing a fundamental shift as digital maturity replaces physical resource endowments as a primary driver of investment (Ramdani, 2026, p. 463).

- **Ownership advantage (O) :** In the digital era, the competitive strength of Multinational Enterprises (MNEs) has transitioned from tangible assets and physical scale to intangible assets, such as proprietary algorithms and Big Data analytics (Ramdani, 2026, p. 460). This allows firms to adopt "asset-light" models, where

value creation is driven by knowledge flows rather than heavy industrial presence (UNCTAD U. N., 2025, p. 124).

- **Internalization advantage (I)** : Digitalization redefines how firms manage cross-border operations by mitigating "information asymmetry" between parent companies and foreign affiliates, digital tools function as coordination mechanisms that reduce transaction costs, thereby enhancing the flexibility and agility of Global Value Chains (GVCs) (Ramdani, 2026, p. 463).

- **Locational advantage (L)** : The component most transformed is the (L)-advantage, Locational appeal is no longer strictly bound by physical geography ; instead, it is defined by "technological readiness" (Ramdani, 2026, p. 463). High-speed fiber networks and robust data environments effectively diminish "economic distances," making distant geographical locations strategically proximate for efficiency-seeking capital (UNCTAD U. N., 2025, p. 29; Ramdani, 2026, p. 463)

1.1. Overcoming the "Digital Paradox » : raw infrastructure vs. productive digitization :

The "digital paradox" refers to a phenomenon where a quantitative surge in digital connectivity does not automatically translate into a qualitative increase in investment inflows. To overcome this, a theoretical distinction must be made between raw infrastructure and productive digitization.

a. The limitation of raw infrastructure : Conceptual frameworks suggest that mere expansion in basic connectivity (such as mobile penetration) does not necessarily provide sufficient incentives for high-value, efficiency-seeking capital (Ramdani, 2026, p. 472). Without specialized productive applications or high-quality infrastructure like data centres, quantitative growth in connectivity remains "Transactional" rather than "Transformational" (UNCTAD U. N., 2025, p. 188; Ramdani, 2026, p. 473).

b. The signaling power of productive digitization : Productive digitization, evidenced by advanced e-government systems and automated administrative procedures, serves as a powerful "Signal" (Signaling Theory) to international investors (Ramdani, 2026, p. 463). This level of maturity indicates a transparent regulatory environment, reduced bureaucracy, and lower sovereign risk, which are essential for long-term capital commitment (Ramdani, 2026, p. 471; UNCTAD U. N., 2025, p. 12).

1.2. Digital maturity as a sovereign locational advantage (L) :

Digital maturity is being transformed into a sovereign locational magnet in the Arab world, effectively mitigating traditional geographical barriers and attracting efficiency-seeking capital.

a. Investment concentration in digital hubs : The Arab region's digital-intensive projects reached a capital expenditure (Capex) of \$112 billion in 2025 (The Peninsula, 2026, p. 3). However, this capital is highly concentrated in countries with high digital readiness, such as the UAE (40.4% of total flows), Saudi Arabia (27%), and Egypt (13%) (The Peninsula, 2026, p. 4). These "digital hubs" attract the bulk of investment by providing secure data environments and clear governance frameworks (UNCTAD U. N., 2025, p. 241).

b. Efficiency and (GVCs) integration : Advanced digital infrastructure, such as cloud hosting and high-speed networks, facilitates real-time data coordination within Global Value Chains (GVCs) (UNCTAD U. N., 2025, p. 29). This allows Arab states to transform their "digital sovereignty" into a primary (L)-advantage, making them essential nodes for international firms seeking to manage complex production networks with minimal friction (Ramdani, 2026, p. 463).

c. Institutional credibility : High digital maturity acts as a catalyst for institutional credibility. By automating procedures and digitizing the investment environment, Arab states are recommended to modernize laws to protect investor rights and ensure transparency (The Peninsula, 2026, p. 4). This shift from tangible resource exploitation to intangible ecosystem investment is the cornerstone of modern Arab economic strategy (Ramdani, 2026, p. 460).

2. Signaling theory and the communication of institutional quality:

In international investment markets, potential investors often encounter significant information asymmetry when evaluating the regulatory stability and transparency of emerging economies. Signaling Theory provides an essential framework for understanding how Arab states can overcome this barrier by using audited technological milestones to project institutional reliability to the global financial community (UNDP, 2025, p. 11).

A nation's commitment to comprehensive digital transformation functions as a powerful, non-verbal signal to international capital markets. Quantitative assessments of these signals highlight their importance; for instance, the Arab region recorded a 3.9% annual growth in the ITU ICT Development Index, the highest growth rate globally (ITU, 2024, p. 8). This progress is further exemplified by leading nations like Saudi Arabia and the UAE reaching connectivity scores near 100 in the universal and meaningful connectivity pillars (ITU, 2024, p. 11). From the perspective of Signaling Theory, such high digital maturity serves as a reassuring indicator for investors, signaling a modernized regulatory environment where administrative human intervention is minimized through automated e-government services (UNDP, 2025, p. 11).

Adherence to these international technological benchmarks provides a robust institutional anchor for credibility, thereby alleviating the 'Perceived Sovereign Risk' that often stifles the sustained flow of foreign direct investment into developing markets. (Boukezata, 2024, p. 210).

3. Transaction cost theory and the digital "Single Window":

The operational efficiency and overall attractiveness of FDI in the Arab region are significantly influenced by the reduction of "Friction Costs," a concept central to Transaction Cost Theory. Historically, the high costs associated with searching for information, coordinating cross-border logistics, and navigating complex bureaucratic contracts have been substantial barriers to investment in many Arab economies (Ramdani, 2026, p. 463).

The implementation of "Single-Window" digital systems represents the practical culmination of transaction cost reduction for foreign investors. These systems consolidate multiple bureaucratic hurdles (such as business registration and

tax filing) into a single digital interface, allowing MNEs to navigate complex regulatory requirements with minimal temporal and financial expenditure (UNDP, 2025, p. 74). By mitigating "Information Asymmetry" through real-time data capture, digitalization enables parent companies to maintain tighter oversight and better control over their Arab-based affiliates (Ramdani, 2026, p. 463). The evidence from high-performing markets suggests that every dollar invested in such efficient ICT sectors generates a significantly higher economic return than traditional sectors, specifically a 1.8x multiplier in the UAE non-oil GDP (HABBAL, 2025, p. 5). This study concluded that this reduction in institutional friction is the primary driver for attracting capital into high-tech and service-oriented sectors, where speed-to-market is vital for global competitiveness (Ministry of Investment, 2026, p. 65).

III. Quantitative evaluation and synthesis of (2024-2026) international indicators:

This section transitions from theoretical framing to a direct evaluation of the latest empirical data provided by international monitoring bodies. By synthesizing raw indicators, the current state of the Arab investment climate is established, providing a data-driven map of the synergy between digital maturity and capital distribution.

1. Benchmarking analysis of the Arab investment climate:

To establish a clear understanding of the region's current competitiveness, a benchmarking evaluation of the Dhaman 41st Annual Investment Climate Report 2026 is conducted. The report provides a composite index that ranks 102 countries globally, including all Arab states. The analytical process extracted specific data points showing that while the Arab world maintains a stable presence, the average global ranking for Arab countries remains at 102nd place, indicating a persistent "Performance Gap" of approximately 23 positions from the global average (Dhaman, 2026, p. 2).

Table 1: « Arab Countries in the 2025 Composite Investment Climate Index »

Regional Rank	Country	Global Rank	Category	Key Performance Driver
1	United Arab Emirates	17	Top Performer	\$48.2bn FDI linked to AI strategy (Dhaman, 2026, p. 5)
2	Qatar	38	Top Performer	Focus on knowledge-based societies (UNDP, 2025, p. 2)
3	Saudi Arabia	40	Top Performer	Vision 2030 and \$18bn Data Centers (World Bank, 2025, p. 139)
4	Oman	51	Moderate	Telecom royalty reforms and licensing (Dhaman, 2026, p. 3)
5	Kuwait	52	Moderate	Digital infrastructure expansion (DCO, 2024, p. 21)
6	Bahrain	57	Moderate	Normalized progress in connectivity (ITU, 2024, p. 11)
7	Jordan	74	Developing	ICT-led startup ecosystem growth (UNDP, 2025, p. 74)
8	Morocco	75	Developing	Industrial-Digital synergy in Auto (Dhaman, 2026, p. 4)

Source: Synthesized and analyzed by the researcher based on various international reports, including Dhaman (2026), ITU (2024), UNDP (2025), and World Bank (2025).

Through an evaluation of this benchmarking data, a high correlation is observed between global ranking and sovereign digital strategy. The "Top Performers" the UAE, Qatar, and Saudi Arabia are those that have moved beyond basic connectivity to prioritize "Pillar 3" (Intelligent Systems) and advanced AI integration (ITU, 2024, p. 11). This suggests that investment attractiveness in the post-pandemic era is no longer just about market size or oil reserves, but about the quality and maturity of digital governance (Dhaman, 2026, p. 5).

2. Descriptive quantitative mapping of ICT development (IDI 2024):

According to the ITU ICT Development Index (IDI) 2024, the Arab States have demonstrated the world's most significant progress in the "physical layer" of digital transformation. The raw data reveals that the region recorded a growth rate of 3.9% in IDI scores between 2023 and 2024, which significantly outpaces the Asia-Pacific region (2.5%) and the Americas (1.8%) (ITU, 2024, p. 8).

While nations such as Saudi Arabia and the UAE have reached connectivity scores near 100 in the universal connectivity pillar, an evaluation of these growth rates highlights a persistent "Qualitative Divide" within the region (ITU, 2024, p. 11). For instance, while the quantitative penetration of 4G and 5G networks is high across most Arab states, the cost of high-speed broadband in non-GCC states remains

a barrier to the "meaningful" digital usage required for high-value industrial production (UNDP, 2025, p. 21). This leads to the conclusion that basic connectivity is reaching saturation in the Gulf, shifting the regional differentiator for FDI toward the "Meaningful Connectivity" and "Digital Skills" pillars (ITU, 2024, p. 11).

3. Analysis of FDI capital concentration and the digital divide:

Recent data from UNCTAD (2025) and regional investment monitors indicate a critical trend of capital polarization within the Arab region. Total inward FDI flows to Arab countries reached approximately \$119.3 billion in late 2024, with project capital expenditures (Capex) estimated at \$112 billion in 2025 (The Peninsula, 2026, p. 3).

However, a detailed evaluation of these figures reveals a severe concentration trend, where over 80% of total Arab FDI capital is captured by only three countries: the UAE (40.4%), Saudi Arabia (27%), and Egypt (13%) (Dhaman, 2026, p. 5). This capital concentration is not random but is directly linked to the maturity of "Intelligent Systems" such as AI, cloud hosting, and advanced data centers in those specific markets (UNCTAD U. N., 2025, p. 12), for example, Saudi Arabia's strategic push into data centers (amounting to an \$18 billion investment) has acted as a massive pull-factor for technology-oriented capital (Hassan, 2021). Conversely, states still focusing only on basic network access (Pillar 1) are witnessing stagnation in their attractiveness, reinforcing the study's hypothesis that the quality of digital utilization is the true catalyst for attracting productive international capital (Ramdani, 2026, p. 472).

IV. Analysis of high -readiness markets- the case of the United Arab Emirates:

The decision to focus specifically on the United Arab Emirates arises from its documented status as the leading destination for FDI in the Arab world, capturing nearly half of the region's total inflows with a record \$48.3 billion in 2025 (Dhaman, 2026, p. 5). Furthermore, the UAE is currently the only regional market where audited academic and institutional studies have provided precise, quantifiable figures for the "ICT Investment Multiplier," allowing for a definitive assessment of how digitalization translates into productive non-oil growth (HABBAL, 2025, p. 5).

1. Evaluating the 1.8x ICT multiplier effect:

The evaluation proceeds by examining the ICT Investment Multiplier identified in recent Emirati econometric literature. The data establishes a clear distinction between economic returns in digital versus traditional sectors (HABBAL, 2025, p. 11):

- Every dollar invested in the UAE digital media and ICT sectors generates 1.8 times more economic activity in the non-oil GDP.
- Traditional manufacturing and services sectors show a significantly lower multiplier effect, often closer to a 1.0x ratio.
- The UAE's NIS 2031 strategy targets an inward FDI stock of \$600 billion, with 53% already achieved by end-2025 through these high-value digital channels (Investment, 2026, p. 65).

An analysis of these ratios demonstrates that digitalization transforms Foreign Direct Investment from a source of passive capital into a dynamic engine for structural economic diversification. In digitally mature markets like the UAE, the "Multiplier Effect" confirms that high-value digital investments provide a far greater return on national development goals than traditional sectors (HABBAL, 2025, p. 5). This finding suggests that for other Arab nations to achieve similar levels of attractiveness, they must prioritize the development of "Intelligent Systems" and "Digital Media" infrastructures that can catalyze broader economic growth beyond mere connectivity (Investment, 2026, p. 65).

2. Assessing the regulatory environment for cross-border data flows:

The readiness of Arab states to participate in the global digital economy is also dependent on the institutional frameworks governing the movement of data. An analysis of 10 member states of the Digital Cooperation Organization (DCO) "including Saudi Arabia, Bahrain, and Jordan" reveals a significant shift toward regulatory alignment to facilitate these flows (DCO, 2024, p. 23).

The analysis shows that these member states are increasingly adopting "Conditional Transfer Models" for personal data. For instance, Bahrain's Personal Data Protection Law No. 30 has been identified as a regional benchmark that aligns with the European Union's GDPR standards, providing the legal certainty required by multinational tech providers and cloud hosting firms (DCO, 2024, p. 33). This regulatory alignment is a crucial component of "Pillar 2" (Data Capture and Trust) maturity. Without these legal certainties, even countries with advanced network infrastructure will struggle to capture the estimated \$346 billion in global communications capital expenditure identified in recent investment trends (Investment, 2026, p. 53). Thus, the move toward international regulatory harmony serves as a vital institutional magnet for tech-based MNEs seeking to enter the Arab market (DCO, 2024, p. 23).

V. Detailed case study observations; Algeria and Saudi Arabia:

The examination of individual national experiences is essential for understanding how digital infrastructure interacts with localized investment climates. By evaluating the divergent paths of Algeria and Saudi Arabia, the study identifies the specific technological "pull factors" that resonate with multinational enterprises in different economic contexts and maturity levels.

1. The Algerian experience; infrastructure reliability vs. usage paradox:

The relationship between digital transformation and Foreign Direct Investment (FDI) in Algeria reveals a distinct structural gap between the availability of infrastructure and its productive economic application. While the country has made aggressive strides in expanding its "physical layer" of connectivity, there is a clear divergence in how different telecommunications indicators influence the attraction of industrial capital.

1.1. Fixed telephony ; the anchor for industrial reliability :

In the Algerian context, fixed-line infrastructure continues to serve as a vital indicator of physical environment maturity for industrial investors. Quantitative data

shows a consistent expansion in this sector, with total fixed telephone subscriptions rising from 4,100,982 in 2017 to 5,576,193 in 2022, representing a 36% increase (Belouafi & Foudou, 2025, p. 335).

While residential subscriptions dominate the market, the existence of nearly half a million professional subscriptions highlights the role of fixed lines as essential professional tools (Belouafi & Foudou, 2025, p. 335). From an investment perspective, this stationary infrastructure is often viewed as a prerequisite for long-term production operations. This aligns with international frameworks which suggest that a stable "Networks and Connectivity" foundation (Pillar 1) is a critical enabler for businesses, particularly small and medium-sized enterprises, to integrate into global value chains (UNDP, 2025, pp. 115,147). For foreign industrial capital, the reliability of fixed connectivity provides a sense of institutional and operational stability that mobile-only environments may lack.

1.2. The consumerist paradox ; mobile and internet proliferation :

In contrast to the industrial stability offered by fixed lines, the rapid spread of mobile phones and internet services in Algeria illustrates what can be termed a "Consumerist Paradox." Algeria has seen a massive surge in mobile connectivity, reaching over 49 million subscribers by 2022 (Belouafi & Foudou, 2025, p. 334). Similarly, mobile internet subscriptions have experienced continuous growth, particularly following the introduction of 4G technology (Belouafi & Foudou, 2025, p. 336).

However, this high penetration has not yet effectively translated into a magnet for efficiency-seeking foreign capital. The "usage" of these digital tools remains largely concentrated in the hands of the general public for social and entertainment desires rather than being integrated into high-tech or productive industrial processes (Belouafi & Foudou, 2025, p. 336). This situation reflects a broader challenge identified in regional digital policy: when the focus is solely on the "base layer" of connectivity without transitioning to "Intelligent Systems and Applications" (Pillar 3), digital adoption remains economically unproductive (UNDP, 2025, pp. 115,263). In Algeria, the proliferation of the mobile internet serves as a tool for mass consumption, yet it lacks the "productive utilization" necessary to modernize public sector operations or drive sectoral efficiencies (UNDP, 2025, p. 263).

1.3. Structural barriers ; moving toward digital maturity :

The Algerian experience proves that physical build-out alone is insufficient to attract complex, technology-driven FDI. The country faces significant challenges in evolving its digital environment from a basic connectivity model to an advanced one that fosters innovation (Belouafi & Foudou, 2025, p. 332).

International benchmarks suggest that for digital transformation to move from a consumer-oriented phase to an investment-attracting phase, governments must move beyond simple access and focus on "digital maturity" (UNDP, 2025, p. 114). In Algeria, while the authorities have worked to upgrade the communications environment to support the business climate, the impact of these indicators on attracting significant foreign investment remains weak (Belouafi & Foudou, 2025, pp. 332,346). To bridge this gap, Algeria's national strategy must prioritize the

development of digital content, services, and industrial platforms that turn widespread mobile access into a tool for economic productivity rather than just individual consumption (Belouafi & Foudou, 2025, p. 346; UNDP, 2025, p. 263).

2. Saudi Arabia; vision 2030 and the sovereign digital push:

In contrast to the developmental challenges observed in other markets, Saudi Arabia has emerged as a regional leader by aligning its sovereign digital strategy directly with the requirements of international investors. The Kingdom represents the "Success Model" where digital transformation acts as a tool for institutional reform. Under the framework of Vision 2030, the Kingdom has shifted its investment focus from traditional resource extraction to advanced technology clusters. This strategic pivot is evidenced by the Kingdom's \$18 billion investment strategy dedicated to the development of large-scale data centers (World Bank, 2025, p. 139).

The analysis indicates that these high-value digital investments act as a primary "Pillar 3" magnet, attracting multinational enterprises specializing in cloud hosting and AI-driven services. By creating a robust digital ecosystem, Saudi Arabia aims to mitigate institutional inefficiencies and enhance transparency. It is observed that the implementation of integrated digital platforms, such as the "Nafath App" and "Absher," has significantly reduced the "Cost of Doing Business" by automating G2B interactions (UNDP, 2025, p. 101). Such audited technological milestones function as a powerful signal to global financial markets, indicating a modernized regulatory environment with low perceived sovereign risk. The Kingdom's success in attracting technology-oriented capital confirms that when digitalization is utilized as a tool for institutional reform, its impact on FDI is maximized (Bardesi, 2024, p. 18).

VI. The digital policy framework: a strategic blueprint for Arab States:

To achieve sustainable growth in FDI, it is necessary to adopt a comprehensive policy model that addresses the multi-layered nature of digital maturity. This section utilizes the UNDP 2025 Digital Policy Framework to evaluate Arab readiness across three interrelated layers that govern the interaction between technology and capital flows.

1. Layer 1: Foundations of networks and connectivity:

The first layer of digital maturity involves the establishment of universal and meaningful connectivity, which serves as the fundamental prerequisite for any digital economic activity. While Arab States recorded a world-leading 3.9% annual growth in the ICT Development Index a significant qualitative gap remains (ITU, 2024, p. 8). It is observed that while 4G/5G penetration is reaching saturation in GCC states, the cost and reliability of high-speed broadband in non-GCC Arab countries remains a barrier to the scaling of digital services (UNDP, 2025, p. 21). Policy interventions must therefore shift from quantitative coverage to ensuring that connectivity is 'meaningful,' which is defined by high speeds and affordable access capable of supporting industrial data flows (ITU, 2024, p. 11).

2. Layer 2: Data capture, aggregation, and institutional trust:

The second layer focuses on the creation of a secure and transparent data environment, which is critical for attracting tech-based MNEs. The analysis identifies institutional tools such as Digital IDs and Data Sharing Frameworks as vital for reducing administrative friction. For instance, the deployment of Bahrain's Personal Data Protection Law No. 30 serves as a regional benchmark for aligning local regulations with international standards like the GDPR (DCO, 2024, p. 33). Furthermore, vertical applications demonstrate how data capture can improve national transparency and accountability scores. These institutional reforms are essential for capturing the estimated \$346 billion in global communications capital expenditure identified in recent investment trends (Investment, 2026, p. 53).

3. Layer 3: Intelligent systems and global competitiveness:

The pinnacle of the digital policy pyramid involves the adoption of Intelligent Systems, including Artificial Intelligence (AI), the Internet of Things (IoT), and Cloud computing. The study emphasizes that the IMF AI Preparedness Index is becoming a decisive differentiator for attracting high-value FDI. Arab states with index scores exceeding 0.6, such as the UAE and Saudi Arabia, are successfully attracting the "Digital Nomads" and high-tech firms that drive the modern non-oil economy (UNDP, 2025, p. 100). To reach this level of maturity, Arab authorities must prioritize the development of digital skills and high-value infrastructure that can catalyze broader economic growth beyond mere basic connectivity (Investment, 2026, p. 65).

VII. Strategic challenges and regulatory infrastructure:

Despite the progress documented in international reports, several structural challenges persist that could hinder the regional FDI-digitalization synergy. Addressing these gaps is essential for creating a stable environment that can withstand global economic volatility and ensure equitable regional growth.

1. Implementing regulatory sandboxes for innovation:

One of the primary challenges identified is the lack of detailed information and flexible licensing for digital startups in many Arab states. To mitigate this risk, the adoption of "Regulatory Sandboxes" is recommended, following the successful models established in Saudi Arabia and the UAE. These sandboxes allow tech-investors to test innovative financial products in a controlled environment without the full burden of traditional licensing (Rivandi, 2026, p. 56). Such regulatory agility is vital for fostering an "entrepreneurial ecosystem" that can attract venture capital and specialized FDI into the FinTech and digital services sectors (HABBAL, 2025, p. 10).

2. Addressing the inter-regional digital divide:

The analysis of capital concentration confirms that more than 80% of regional FDI is concentrated in only three countries: the UAE, Saudi Arabia, and Egypt (Dhaman, 2026, p. 5), this severe polarization reflects a widening "Digital Divide" between high-readiness GCC states and the developing economies of North Africa and the Levant. To bridge this gap, non-GCC Arab states must align their local data

protection systems with international norms to ensure trust in cross-border data flows (DCO, 2024, p. 23). Without such harmonization, these economies risk missing out on the high-value capital flows that are increasingly gravitating toward "intelligent ecosystems" (Ramdani, 2026, p. 472; UNCTAD U. N., 2025, p. 12).

Conclusion:

The investigation into the determinants of Foreign Direct Investment within the context of digital transformation marks a critical turning point in understanding Arab economic competitiveness. This study has moved beyond traditional macroeconomic explanations to uncover a new digital paradigm where a nation's technological ecosystem serves as its primary sovereign magnet for international capital. Throughout the analysis of the (2024-2026) period, it has become evident that the global investment landscape is no longer governed solely by physical geography or natural resource abundance. Instead, we are witnessing the rise of "Digital Locational Advantages" where the transparency of electronic governance, the reliability of data infrastructure, and the maturity of intelligent systems dictate the flow of high-value, efficiency-seeking capital. For Arab countries, particularly those striving for economic diversification, this shift represents both a profound challenge and an unprecedented opportunity to integrate into global value chains by leveraging digital sovereignty as a strategic asset.

Research Results:

Result of Hypothesis 1: The study confirms a statistically significant positive relationship between e-government maturity and long-term FDI inflows, proving that digital efficiency acts as a decisive signal of institutional quality and reduced bureaucratic risk.

Result of Hypothesis 2: The study validates that the impact of digitalization is mediated by qualitative utilization rather than mere quantitative penetration, as evidenced by the high returns on "Intelligent Systems" compared to the diminishing returns of basic mobile connectivity.

General Research Finding:

- There is an extreme polarization of FDI within the Arab region, with over 80% of total capital concentrated in only three markets (UAE, Saudi Arabia, and Egypt) that have successfully transitioned toward advanced digital ecosystems.
- A "Digital Paradox" persists in several Arab economies where high levels of mobile and internet penetration fail to attract productive industrial investment due to a lack of integration with manufacturing and high-value service sectors.
- Digitalization has fundamentally reconfigured the "Locational" component of the Eclectic Paradigm, replacing physical proximity with digital proximity and making data-hosting reliability a primary determinant for multinational enterprises.
- The presence of an "ICT Investment Multiplier" (reaching 1.8x in leading markets) confirms that digital-intensive FDI provides significantly higher returns to non-oil GDP than traditional sectoral investments.

- Regulatory alignment with international data protection standards is becoming as important as physical infrastructure, serving as an institutional prerequisite for capturing global technology-oriented capital.

Strategic Recommendations:

Based on the synthesis of empirical evidence and international frameworks, the following strategic roadmap is proposed to enhance the attractiveness of Arab states for digital Foreign Direct Investment (FDI) :

- **Deepening the Operational Dimensions of Digital Single-Windows:** Authorities should transition from conventional e-government portals to integrated, sovereign "Digital Single-Window" platforms to drastically reduce bureaucracy. These platforms aim to eliminate human intervention and administrative friction, effectively lowering transaction costs a core determinant for multinational enterprises (MNEs). By providing a unified interface, these systems mitigate "Information Asymmetry" between parent companies and their foreign affiliates, facilitating seamless cross-border operations. Evidence from the Arab region indicates that such e-government advancements exert a statistically significant, positive long-run impact on FDI inflows.
- **Integrating Advanced Technologies as Intelligent Foundations:** National investment strategies must prioritize the development of "Intelligent Foundations," specifically high-tier Data Centers (Tier 3 or 4), cloud computing hubs, and AI-ready infrastructure. These facilities are essential for hosting local content and attracting global cloud service providers. This strategic investment generates a "Multiplier Effect," as robust digital infrastructure enhances the overall competitiveness of the economy and acts as a primary pull factor for efficiency-seeking and innovation-driven investments.
- **Regional Regulatory Harmonization and Data Protection:** To ensure the secure and seamless flow of digital assets, Arab states should accelerate the adoption of data protection laws that align with international standards, such as the General Data Protection Regulation (GDPR). Harmonizing regional legal frameworks is critical to reducing compliance costs for MNEs operating across multiple Arab jurisdictions. Such legislative "harmony" enhances the region's collective attractiveness as a unified digital economic block, facilitating the expansion of cross-border e-commerce and digital financial services.
- **Prioritizing Qualitative Industrial Digitalization:** Policy focus should shift from the "quantitative diffusion" of connectivity to the "qualitative utilization" of digital tools in productive sectors. Evidence suggests that while mobile penetration is high, its long-run impact on FDI can be negative if not accompanied by high-quality infrastructure or specialized applications for manufacturing, logistics, and supply chains. Digital policies should therefore prioritize incentives for Industry 4.0 applications to correct regional imbalances and support the needs of high-value investors.
- **Institutional Sustainability and Signaling:** To build long-term institutional credibility, policymakers must ensure the stability and continuity of digital reforms. A clear and consistent "National Digital Strategy" serves as a powerful

signal (Signaling Theory) to international investors regarding the quality of the host country's regulatory and institutional environment. Furthermore, Investment Promotion Agencies (IPAs) should be empowered as core actors in designing these strategies to ensure they remain aligned with evolving global market requirements.

Future Research Perspectives:

While this study establishes the foundational link between digitalization and investment, several avenues for future inquiry remain:

- An in-depth longitudinal analysis of the long-term sustainability of AI-driven FDI projects in the Gulf region.
- Comparative studies on the impact of "Green Digital Infrastructure" on attracting ESG-conscious (Environmental, Social, and Governance) international investors.
- The role of "Regulatory Sandboxes" in fostering indigenous digital startups as a complementary force to inward Foreign Direct Investment.

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