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Article

Digitalization and country image: Key influencing factors (a case example of Nigeria)

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Abstract: This article examines the multi-faceted role of digital technologies in shaping a country's image, with particular reference to Nigeria, the largest economy in West Africa. Digital technologies are playing an increasingly significant role in the development of country image, impacting cultural, economic, and political aspects, and this is drawing increasing interest and focus from the academic community. Here, the ways in which digital technologies contribute to the creation and projection of a country's image are investigated via a two-stage research process. Firstly, a systematic literature review identifies key influencing factors (IFs) that are represented in a provisional conceptual framework (PCF). The IFs are the impact of social media, the level of digitalization and support infrastructure, cybersecurity vulnerabilities, technology innovation, standards and governance, and education and awareness. Secondly, a questionnaire based around the PCF was circulated to 10 leading academics and managers, in which they were asked for their views and experiences, and their assessment of the significance of each of the IFs. The exploratory paper concludes that digitalization has a significant influence on a country's image, affecting perceptions of technological advancement, economic development, access to information, social transformation, and global competitiveness, and suggests that the framework put forward here may act as a model for cross-country comparisons in subsequent studies.

Keywords: digitalization; country image; provisional conceptual framework; influencing factors; digital transformation

1. Introduction

Digitalization has become a transformative force reshaping societies, economies, and governance structures around the world. Consequently, as countries strive to enhance their international standing, the concept of a "country image" has gained prominence as a crucial element in shaping perceptions, attracting investments, and fostering diplomatic relations. At the same time, the integration of digital technologies into all aspects of life has brought unprecedented opportunities and challenges for nations aiming to position themselves on the global stage [1]. Digitalization remains a crucial aspect of development for developing countries [2]. In this context, the novelty of this research is that it aims to develop an understanding of how digitalization contributes to the creation and promotion of a positive country image, and puts forward a set of key influencing factors related to digitalization that will impact the overall perception and reputation of a nation on a global scale [3–5]. It is essentially an exploratory paper that attempts to address a gap in existing literature and provide a basis for subsequent research in this field.

There is little doubt that digitalization can have a major impact in shaping a country's image, notably in the way in which it is perceived—economically, culturally, politically and socially—by both internal and external stakeholders, including governments, businesses and tourists. Through websites, social media platforms, and digital marketing campaigns, digital technologies can project a country's key credentials and attributes. However, there are also potential risks in digitalization as regards country image—misinformation, cyber-attacks, and reputational damage. Thus, understanding how countries can most effectively use digital tools to shape their image is crucial for policymakers, marketeers, researchers, as well as the wider business and social communities. This paper explores this research area, reviewing relevant literature and putting forward a framework that encapsulates the key influencing factors.

For Nigeria, the most populous country in Africa and an emerging economic force, integrating digital technologies across various sectors can play a critical role in shaping the country's socio-economic landscape and global standing. Recent studies by Ajayi and Mohammed [6] and Okeke and Adesanya [7] conclude that the effective deployment of digital technologies has the potential to improve government efficiency and transparency, as well as engender citizen engagement, while also creating employment opportunities. In a similar vein, Adeleke and Bello [8] highlight how online marketing and branding can contribute to a positive perception of Nigeria on the international stage, and Nwosu and Okoli [9] emphasize the importance of targeted interventions to bridge the digital divide and equip Nigerians with the necessary skills for the digital era. Their assessment highlights both challenges and opportunities for digital literacy in Nigeria.

These recent studies collectively contribute to the foundation of knowledge on the intersection of digitalization and national image promotion, forming the basis for the current research endeavor aimed at proposing a robust framework for Nigeria's digital diplomacy and image enhancement strategy. There is an absence of relevant frameworks regarding digitalization and its impact on Nigeria's country image. Integrating these recent findings provides a grounding for research results here and underpins the contribution to the ongoing discourse on the dynamic relationship between digitalization and a country's global image. The paper builds upon an earlier interim conference paper by the authors [10], and addresses two research questions (RQs):

RQ1. What conceptual framework emerges from the extant literature to act as a basis for wider research initiatives on digitalization and Nigeria's country image?

RQ2. What is the relative significance of the emergent influencing factors and how will they impact Nigeria's country image in future?

2. Research method

The research process was mainly inductive, based on a pragmatic research paradigm, comprising two phases—a systematic literature review (SLR), followed by a survey questionnaire involving 10 respondents. There were thus two main phases to the research process (**Figure 1**).
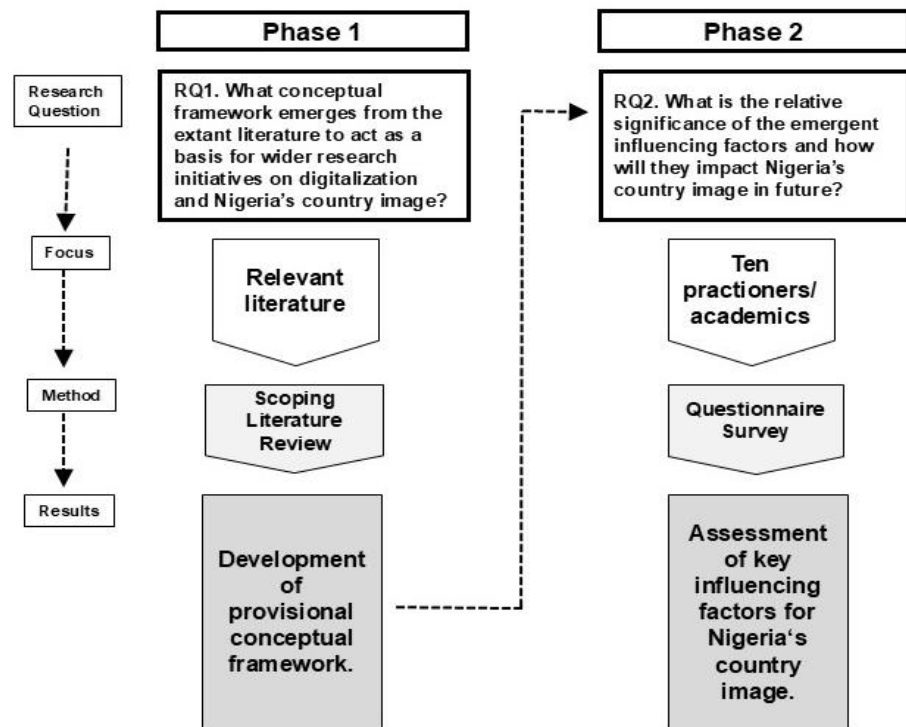
Figure 1. The two-phase research process.

In Phase 1, key themes in the extant literature were identified and presented in a provisional conceptual framework (PCF) of key influencing factors, which was then used for the design of a survey questionnaire in Phase 2. Hart and Turk [11] note that "the literature review serves to position the research within the existing body of knowledge, making it possible to highlight areas where further investigation is necessary and to construct a solid foundation for the research framework", and Fink [12] similarly notes that a well-conducted literature review provides the basis for synthesizing findings to provide a framework for subsequent primary research. Tranfield et al. [13] outlined the benefits of a literature review in providing a firm foundation for advancing knowledge, and Webster and Watson [14] also suggest it can provide the basis for facilitating theory development. In this study, the qualitative evaluation of existing literature through a systematic review facilitated the inductive development of the PCF, a process advocated by Kraiwanit et al. [15] as of value for advancing knowledge and fostering theory development.

The review process (Phase 1 of the research) adhered to PRISMA guidelines [16], enabling a systematic synthesis of the relevant literature. A comprehensive search was conducted across databases including Scopus, Web of Science, PubMed, and Google Scholar. The search terms included "digitalization," "country image," "Nigeria," "e-governance," "digital infrastructure," and "social media." Articles published between January 2014 and January 2024 were considered.

More specifically, inclusion criteria were peer-reviewed articles and conference papers; studies focusing on digitalization and/or country image; research involving Nigeria or comparable developing economies; and articles published in English between 2014 and 2024. Exclusion criteria were studies not focused on digitalization

or country image; non-peer-reviewed articles, books, and grey literature; and articles published before 2014. A total of 510 records were identified through searches across the online databases noted above. After conducting an initial screening, 320 records were excluded due to duplication. Subsequently, 120 full-text articles were assessed for eligibility, and following the application of exclusion criteria, 42 articles were ultimately reviewed and deemed to meet the inclusion criteria.

The selected studies were analyzed using Terry et al.'s [17] thematic analysis framework. This comprises six stages: First, familiarization with literature; second, the application of some form of coding or classification; third, the initial development of main themes or concepts; fourth, a review of these emergent themes; fifth, a clearer definition and labeling of these main themes; and finally, a summary report or graphic representation of the main themes identified. This approach allowed the identification of the key influencing factors encompassed in the provisional conceptual framework. Much of this sifting of concepts and themes was done manually, although spreadsheets were also used to store and manipulate data. Indeed, for small quantitative studies, Webb [18] recommends using manual data analysis to facilitate a degree of intuition that is not easily achieved when using software products for data analysis, and Mason [19] also highlights the benefits of manually reviewing data. The PCF is thus based upon the extant literature and represents an initial view of the key concepts or influencing factors that were then put to the questionnaire respondents in Phase 2. Jabareen [20] has pointed out the value of such a conceptual framework in supporting research in complex social phenomena, as "usually, these multidisciplinary phenomena do not even have a skeletal framework".

In Phase 2 of the research, a questionnaire was developed based on the key influencing factors distilled from the SLR. The questionnaire was emailed to ten respondents who were known to one or other of the authors. All held academic and/or professional posts and, in the opinion of the authors, had the knowledge and experience to provide an informed response to the questionnaire. The ten respondents (anonymized), with job roles, are shown in **Table 1**.

Table 1. Questionnaire respondents' profiles.

CODE	INSTITUTION	JOB/ROLE	ACADEMIC EXPERIENCE	PROFESSIONAL EXPERIENCE
P1	University of Ilesa, Osun-State, Nigeria	Lecturer and researcher in Law	He has worked at the university for 15 years.	Before joining academia, he worked in a law practice for 10 years.
P2	University of Wolverhampton, UK	Lecturer and researcher in IT	He has 5 years' experience at the university.	He worked as an IT professional for 8 years in Nigeria before joining the university.
P3	University of Ilorin, Kwara-State, Nigeria	Faculty Dean in Agricultural Economy	15 years' experience in higher education.	He worked for 10 years in a state ministry before joining academia.
P4	Fintech company, Nigeria	Chairman	He is also involved in teaching sports management at the university level.	Is also chairman of the Sports Council, Osun State.
P5	University of Sheffield, UK	Lecturer and researcher in IT	He has been at university for 5 years.	He previously worked as a software engineer for 5 years.
P6	Federal University of Technology Akure, Nigeria	Senior Lecturer and security expert	He has taught cybersecurity courses at the university for eight years.	He was with Nigeria Minting and Printing for 5 years before joining academia.

Table 1. (*Continued*).

CODE	INSTITUTION	JOB/ROLE	ACADEMIC EXPERIENCE	PROFESSIONAL EXPERIENCE
P7	Osun State Polytechnic, Iree, Nigeria	Faculty Dean	She has been a lecturer and manager in higher education for 20 years.	She freelances with a television station with an interest in politics, with 8 years of experience.
P8	Osun State College of Technology, Nigeria.	Teacher and economist	He has 20 years of teaching experience.	Prior to this time, he worked as a financial manager at Machine Tools, Osogbo.
P9	University of Ilesa, Nigeria	Senior Lecturer and public speaker	He has 10 years' experience of teaching.	He previously worked as a journalist with the Nigeria Tribune for 15 years.
P10	Osun State Polytechnic, Iree, Nigeria	Research Director and IT expert	21 years' experience in higher education management.	He worked at an IT company for 5 years before joining academia.

The respondents were asked to rate the 6 main influencing factors (IFs) for country image on a 1–5 scale (5 being the highest impact), both as regards the current and recent past and then looking to future years. They were also asked to make comments accordingly to support their assessments. The questionnaire assessments and comments were analyzed arithmetically and thematically and are reported below in section 4.2. Spider diagrams, such as those used in analyzing technology transfer in other environments [21], were constructed to illustrate the relative significance of the IFs from questionnaire feedback.

3. Concept definition

"Digitalization" and "country image" are the two central concepts in the research project reported on in this article. Digitalization essentially refers to the deployment of digital technologies to process or present information in numerical form, but also encompasses the resultant changes in business processes [22]. Digital technologies are often represented by the acronyms SMAC (social media, mobile, analytics/big data, and cloud) and BRAID (blockchain, robotics, automation of knowledge work/artificial intelligence, internet of things, and digital fabrication), and more recently a wider classification of digital tools has emerged (**Figure 2**). "Digital transformation" in the corporate environment often involves the development of new products or services [23], which may result in changes to culture, operations, and value proposition, and ultimately a new business model. Human and social factors also emerge as being of equal importance in digital transformation in developing world contexts. For example, in their study of digital transformation in Morocco, Abdallah-Ou-Moussa et al. [24] conclude that "deploying innovative technologies alone is insufficient; it is essential to consider human factors, such as raising employee awareness about the benefits of technologies, reducing resistance to change, and fostering an organizational climate conducive to innovation".

Figure 2. Digital technologies 2025.

Revilla-Camacho et al. [3] see the concept of country image in terms of its global perception and reputation, with its digital presence being a key element of this perception. The effective management and projection of a country's image, therefore, requires an appreciation of these complexities and the varying perspectives of different stakeholders (from government entities and private sector enterprises to potential tourists and the country's general public). A country's technological standing is a key influence in shaping its international reputation [25], and this affects inward investment, diplomatic relations, and citizen participation [26]. Image is an important factor in determining how a country is viewed both internally and externally [27], but digitalization nevertheless constitutes a major challenge in many developing countries. More specifically, in Africa, major hurdles that impede digital progress include poor cybersecurity, gaps in required support infrastructure, and low levels of digital literacy.

Most nations are now aware of the potential of digital platforms in the projection of country image [25], and some sources consider digitalization the defining characteristic of the current era [28]. Lee and Kwak [29] highlight the key role of social media in nation branding and suggest that digital platforms are now a central lever for developing and projecting a country's image. They point out, however, that digital technologies have enabled the communication of positive and negative information, which has shaped public opinion accordingly.

Digitalization has also raised new ethical concerns. Lee [30] concluded that digital technologies can be used by governments and businesses to change perceptions of values, governance, and societal norms, and this has been in evidence most recently in the wars in Europe and the Middle East. Issues such as data privacy, online surveillance, and the spread of misinformation have raised concerns about the trustworthiness and credibility of a country's digital presence. Governments must also consider the ethical implications of digitalization and how the overall image and reputation of their country may be affected [5,31]. One notable area where this has an immediate impact is a country's tourist image, through user-generated content and online reviews. A related issue is digital security, which is now recognized as a key component of national security, potentially impacting digital infrastructure, personal

privacy, and defense capabilities [32]. Digitalization can increase the risk of cyberattacks, but digital technologies can also be part of the solution. Blockchain, for example, can support safe data processing and storage, and countries with advanced security systems and protocols, such as surveillance technology or emergency response systems may be perceived as more secure. In this context, Schwab et al. [33] emphasize the importance of innovation in keeping countries digitally secure as well as enhancing their global image.

These definitions and perspectives from other authors point out the gap in the existing literature and the novelty of the current research. Whilst digitalization (and digital transformation) has been researched in a wide range of business and organizational environments, the linkage between digitalization and country image has not been researched in a systematic manner. In this context, this research attempts to distill from the existing literature the key influencing factors relating to digitalization that impact and shape country image and to get an initial view from a limited number of practitioners regarding their relative significance.

4. Results

4.1. What conceptual framework emerges from the extant literature to act as a basis for wider research initiatives on digitalization and Nigeria's country image? (RQ1)

A PCF can provide a theoretical basis for understanding the impact of digitalization on a country's image, and **Figure 3** depicts the PCF derived from the literature review, reflecting the interactions between the key concepts involved. These were distilled from the literature as the main influencing factors (IFs) that determine the impact of digitalization on country image in the context of Nigeria. A brief summary of each factor and its grounding in the literature is presented below.
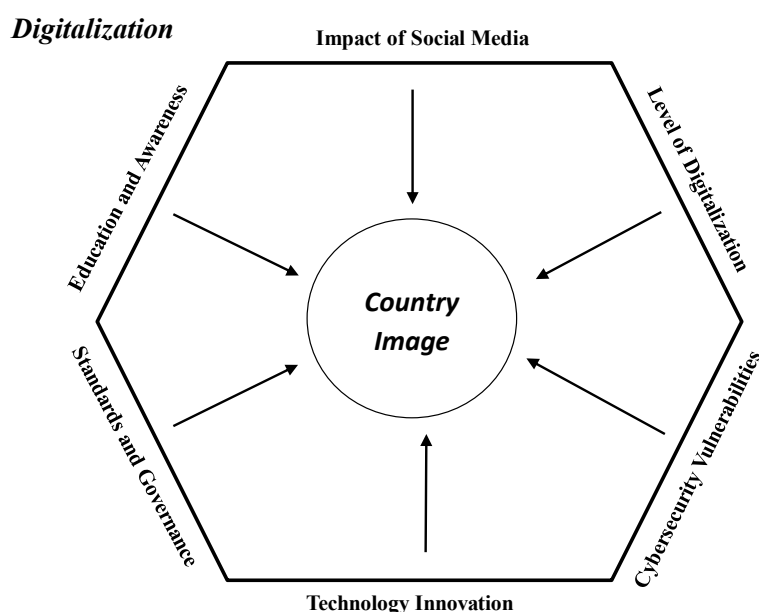

Figure 3. Provisional conceptual framework (influencing factors).

4.1.1. Impact of social media

Social media is well established in the developed world and is now widely used in many developing countries also, particularly in Africa [34]. In parallel, the growth of online platforms has created a significant shift in communication patterns [35]. Social media has become the dominant platform for information sharing, offering both benefits and drawbacks. According to Collins et al. [36], while it can be a blessing, it has also led to significant problems. The lack of regulation opens the door to misuse, resulting in many forms of criminality. Mobile internet and social platforms have allowed citizens to engage with the government and access news, promoting transparency and accountability. However, some governments, including that in Nigeria, have yet to fully grasp the potential of digital platforms in combating misinformation, projecting a positive image, and engaging with international audiences.

4.1.2. Level of digitalization and support infrastructure

Digitalization is a driving force for change in technology and society, and as such, it has implications for both internal and external relationships of individual countries. Here the term refers to the digitalization of all and any process in both the private sector and in public entities, that collectively reflects the degree of digitalization in the nation. In today's information society, a country's ability to manage its digital information and its global accessibility will play a significant role in shaping its image and relationships with other countries. Nigeria's policies and objectives to improve its capabilities in the digital global environment and promote the development of its identity and the well-being of its societies are closely related to this topic. Nigeria has made significant progress in this regard, with the deployment of digital health platforms, e-learning initiatives, and mobile banking services. These initiatives have improved access to vital services, particularly in underserved areas, thereby enhancing Nigeria's image as a country committed to leveraging technology for social development and inclusion. A related aspect is the provision of necessary support infrastructure. Investing in infrastructure and leveraging digital opportunities can enhance global competitiveness and digital leadership [37]. Investments in broadband infrastructure, data centers, and e-government platforms are crucial for supporting digital innovation and inclusion.

4.1.3. Cybersecurity vulnerabilities

One result of the significant technological and informational advances in recent decades has been a rise in global risks and uncertainty, including the emergence of new forms of criminal activity, such as cybercrime [38]. These impact national security, economic growth, trust and confidence, global reputation, policy and governance, capacity building, and collaboration. Oyewole et al. [39] opine that safeguarding data and organizational resources from cyber threats is imperative in light of the complexity of cyberattacks and the impact of digital footprints. The increasing reliance on digital platforms and the interconnectedness of systems expose the country to potential cyberattacks and data breaches. Cyberattacks, data breaches and online fraud highlight the importance of cybersecurity awareness, capacity-building, and proactive measures to safeguard digital assets and mitigate vulnerabilities among Nigerians.

4.1.4. Technology innovation

The application and exploitation of digital technologies are crucial drivers of innovation [40] and underpin a country's global competitiveness. Digital platforms play a significant role in promoting international collaboration, partnerships, and information exchange, which ultimately contributes to a positive global image [41]. The increased use of digital platforms may facilitate cultural exchange, knowledge sharing, and improved diplomatic relations. The impact of technological innovation in Nigeria is multifaceted, influencing perceptions of economic growth and competitiveness, and impacting global recognition, digital inclusion, collaboration, and partnerships.

4.1.5. Standards and governance

Establishing regulatory standards and governance frameworks is essential to ensure the responsible use of digital technology, protect user data privacy, and promote digital trust. Effective governance mechanisms facilitate collaboration between government agencies, industry stakeholders, and civil society to address emerging challenges and promote ethical practices. The use of standards and governance in digitalization is essential for shaping a country's image by ensuring quality, reliability, interoperability, compliance, consumer protection, international collaboration, capacity building, and innovation. In Nigeria, the adoption of common technical standards for digital payments and financial services has facilitated interoperability among banks, fintech companies, and mobile money operators, enhancing the country's image as a conducive environment for digital innovation and business integration. The establishment of regulatory bodies like the Nigerian Communications Commission (NCC) and the National Information Technology Development Agency (NITDA) has strengthened Nigeria's regulatory environment for digital technologies, enhancing its image as a transparent and regulated market for digital investments and activities [42].

4.1.6. Education and awareness

Digital technology contributes to global economic competition and progress in developing countries. Successful digitalization requires skills, confidence, and motivation to use technology. Governments must foster a digitally inclusive society and empower citizens to leverage technology for personal and professional development. Wong et al. [43] submit that competencies in various areas such as computer literacy, ICT literacy, information literacy, data literacy, and media literacy become a basic need of any society. Digital literacy is the ability to define, access, manage, integrate, communicate, evaluate, and create information safely and appropriately through digital technologies and networked devices for participation in economic and social life. Educational initiatives, training programs, and public awareness campaigns play a vital role in promoting responsible digital citizenship and mitigating online risks [44].

4.2. What is the relative significance of these influencing factors and how will they impact Nigeria's country image in future? (RQ2)

The ten respondents provided some useful insights into the current and future significance of the six IFs identified in the PCF. As regards the current situation and recent past, the respondents viewed social media as having the biggest impact on country image, followed by technology innovation and the level of digitalization (**Table 2**). For the future, these three IFs were also seen as the most significant, but technology innovation and the level of digitalization were seen as being slightly ahead of social media in terms of potential impact (**Table 3**). In addition, education and awareness is viewed as a significantly more important factor in influencing country image in the future compared to now and the recent past. Taking the average rankings of the ten respondents, all six IFs were seen to be of greater significance in the future than the present, reflecting the increasing breadth and depth of digitalization and the growing impact that these IFs will have (**Figure 4**).

Table 2. Assessment of the current impact of influencing factors on Nigeria's country image.

Influencing Factor/Respondent Assessment	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Av.
The Impact of Social Media	4	5	4	4	4	5	5	2	4	5	4.2
Level of Digitalization	3	4	5	3	3	5	3	2	3	5	3.6
Cybersecurity Vulnerabilities	2	3	3	1	2	4	3	2	5	5	3.0
Technology Innovation	3	4	4	4	5	4	4	2	3	5	3.8
Standards and Governance	2	3	5	-	3	3	2	3	2	5	3.1
Education and Awareness	2	4	2	1	4	3	3	2	4	1	2.6

Table 3. Assessment of the future impact of influencing factors on Nigeria's country image.

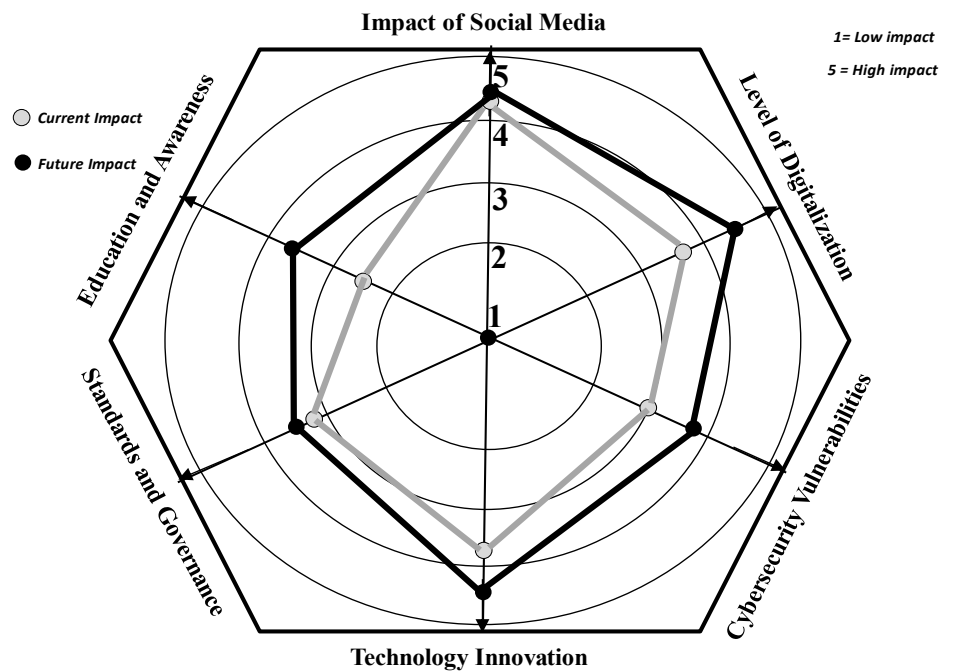| Influencing Factor/Respondent Assessment	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Av.
The Impact of Social Media	4	5	5	4	4	-	4	4	4	5	4.3
Level of Digitalization	4	4	5	4	5	5	5	4	4	5	4.5
Cybersecurity Vulnerabilities	3	3	1	1	4	5	4	3	3	5	3.2
Technology Innovation	4	4	5	4	5	5	5	4	4	5	4.5
Standards and Governance	3	2	5	1	4	4	3	4	4	5	3.5
Education and Awareness	3	4	4	4	4	-	5	4	4	1	3.7

Figure 4. Current and future impact of influencing factors from the questionnaire survey.

More generally, P1 emphasized the importance of country image, noting that "Nigeria's international relations and diplomatic engagements play a key role in shaping its global image through interactions with other nations and organizations. Similarly, the country's economic stability and growth influence both local and global perceptions of its development and potential". Specifically, as regards social media, P2 noted: "social media is a powerful tool shaping Nigeria's image globally. Movements like #EndSARS put Nigeria on the international map, showing the world the resilience of its people". P7 similarly observed that "the impact of social media on the image of Nigeria transcends local awareness to international recognition. A good example is the #endbad governance initiative which is a good channel in that the government of the day will be more responsive to delivering [on its commitments]". P2 also pointed out the downside, concluding that "social media has helped Nigerians showcase culture, innovation, and societal issues", but that "misinformation is a problem, sometimes distorting the country's image". Nevertheless, "social media remains a crucial platform for communication and reputation-building".

The growing significance of technology innovation was highlighted by several respondents. To support this, P5 noted the future need for "successful start-up [businesses] or start-up ecosystems" and "IT opportunities and career progression opportunities, and government support for IT education". P2 maintained that "Nigeria is a rising star in tech innovation, particularly in the fintech sector with companies like Flutterwave and Paystack gaining international attention". P1 highlighted "the shift towards renewable energy could significantly influence Nigeria's future image, as global trends push for sustainability and the country seeks to diversify its energy sources". However, P2 added that "while fintech is thriving, other sectors such as healthcare and agriculture are still catching up. Nigeria's tech sector is helping the country build a positive global reputation, especially in Africa, but there's more room

for growth". P1 similarly pointed out that "infrastructure development, especially in transportation and healthcare, will be crucial in improving Nigeria's reputation and supporting its growth". The level of digitalization across the country was commented on by several respondents. P2 observed "Nigeria has made big strides in digitalization, especially in mobile banking, online learning, and digital health services". However, P2 also noted that "rural regions still lag behind due to poor infrastructure. The progress made, however, has significantly boosted Nigeria's global image, portraying the country as one embracing digital change, though more work is needed to ensure everyone benefits".

Looking to the future, P4 noted the possible negatives: "Poor standards and governance, and high cybersecurity vulnerabilities may impact negatively on the image of Nigeria in the future because of the low investment in these two variables". P2 similarly affirmed that "cybersecurity is becoming a major issue in Nigeria. Cybercrimes such as hacking and online fraud have negatively impacted the country's image", and concluded that "improvements in this area are vital for protecting Nigeria's digital space and building trust, especially as the country becomes more connected".

As regards standards and governance, P2 stated that "Nigeria has improved its regulations for digital technologies, but enforcement can be inconsistent. While some areas, like financial services, have clear standards, others still need better governance to improve its [the country's] reputation for transparency and stability". In a similar vein, education and awareness are not seen to have played a leading role until now, but are seen as more important in future years. P2 observed "Digital literacy is improving, but there's still a gap, especially between urban and rural areas" and pointed out that "widespread education is crucial for the country's future image, as it shows Nigeria is preparing its population for the digital age".

P3 succinctly summarized the positives of digitalization on country image as "economic growth and innovation, increased internet penetration and mobile technology usage, encouragement for the government to embrace digital solutions for governance (enabling Nigerian entrepreneurs to grow businesses) and expanded access to learning resources". On the other hand, P3 pointed out that "the negative effects include an increase in cybercrime and internet fraud, a significant gap in access to digital infrastructure between urban and rural areas, a rise in the spread of fake news and misinformation, and challenges in infrastructure".

5. Conclusion

Evidence from the extant literature and the questionnaire feedback confirms that digitalization offers great opportunities for government organizations in Nigeria to improve their efficiency, productivity, transparency, and accountability and thereby enhance the national country image. Digitalization can also serve as a valuable tool for driving government reform and addressing complex societal issues. Nigeria is a dynamic and multifaceted nation and digitalization has far-reaching implications for socio-economic development and global competitiveness [45]. By leveraging opportunities and embracing digital transformation holistically, Nigeria can position

itself as a leading digital economy and a beacon of innovation in Africa and beyond [46].

There are, however, some key challenges that will have to be met if this vision is to be realized. Interviewee P2 succinctly summarized the situation as follows: "Nigeria is in a unique position with its digital transformation. It has the potential to significantly boost its image on the global stage, but this will only happen if it addresses some key challenges. The inconsistency in enforcing digital regulations, especially outside the financial sector, is holding the country back. If the government can ensure that standards are applied evenly across all sectors and invest more in basic infrastructure—like reliable electricity and internet—Nigeria could unlock even more of its potential. Right now, some areas of the country are leading the way in fintech and tech innovation, but others are being left behind due to poor governance and lack of resources. At the same time, Nigeria's large and young population is its biggest asset. If the country can provide more digital education and opportunities, particularly in rural areas, it could become a real tech powerhouse".

Digitalization has also ushered in the concept and practice of "Smart" or "Intelligent" government, which essentially involves the innovative use of digital technologies to transform government operations and practices, in particular as regards the interface with the general public. Nigerian public authorities now face this challenge—to harness the potential of digital tools to improve efficiencies and enhance service delivery. Welby and Tan [47] affirm that smart government delivers public value through making services and procedures digital by default. Such change must encompass all aspects of public sector and government operations, including transport, education, and healthcare, as well as government agencies and regulatory boards. This will require a greater understanding of the interconnected concepts that drive digital transformation to support inclusive and sustainable development [48].

This paper clearly has its limitations. It is based on a literature review and a survey questionnaire of 10 respondents, who are, in the main, academics or senior managers. It is thus best viewed as a pilot study, which will be followed up by a wider more robust survey in the near future. This further stage in the research process will provide a more detailed framework to support enhancement of Nigeria's global image through targeted marketing, social media campaigns, improved digital presence, and policy recommendations. Parallel studies could examine these issues in other African or developing world nations, to explore how digitalization has impacted their country image. It is also evident that digitalization should be accompanied by appropriate measures to address wider socio-economic issues, and the role of digital technologies in facilitating such change would also be a valuable research focus. Such studies could provide the basis for cross-country comparisons, and the development of theoretical perspectives in what remains a relatively unresearched field of study.

Conflict of interest: The authors declare no conflict of interest.

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