



Impact of setting up a computer centre in Kabinda

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ABSTRACT

Digital transformation is now a key driver of socio-economic development. In inland towns of the Democratic Republic of the Congo, particularly in Kabinda, limited access to information and communication technologies (ICT) is hindering the acquisition of digital skills and the modernisation of services. This study aims to assess the impact of establishing a computer centre on the development of digital skills, access to IT services and the improvement of

educational, administrative and economic activities in the town of Kabinda. A mixed-methods approach was adopted, combining questionnaire surveys, semi-structured interviews and field observations involving students, teachers, administrative staff, entrepreneurs and managers of the computer centre. The results show that the establishment of the IT centre significantly improves access to digital tools, enhances users' IT skills, facilitates academic and administrative work, and promotes the employability of young people. However, challenges remain, notably insufficient equipment, power cuts, poor internet connectivity and the high

cost of maintenance. The study recommends strengthening digital infrastructure, providing ongoing training for users and securing support from public authorities to ensure the long-term sustainability of the IT centre.

Keywords: Computer Centre; Information and Communication Technologies (ICT); Digital Skills; Digital Inclusion; Digital Transformation; Local Development; Kabinda; Democratic Republic of the Congo (DRC).

1. Introduction

The development of Information and Communication Technologies (ICT) is now a key driver of economic growth, improved governance, enhanced education and the modernisation of public services. Against a backdrop of digital transformation, IT centres play a strategic role in facilitating access to digital tools, training, the internet and computerised services. Their establishment promotes the development of the population's digital skills and helps to bridge the digital divide between urban and rural areas.

In the Democratic Republic of the Congo (DRC), the government has undertaken several reforms aimed at promoting digitalisation through the National Digital Plan and the Digital Code. Despite these efforts, many provinces and territories continue to face challenges linked to a lack of IT infrastructure, poor internet connectivity, insufficient IT equipment and a shortage of qualified staff. These constraints limit people's access to the opportunities offered by ICTs and slow down the country's socio-economic development.

1.1. General context of IT in the DRC

Information technology in the Democratic Republic of the Congo is undergoing gradual development thanks to public policies geared towards digital transformation. The government is encouraging the digitisation of public administration, the development of telecommunications infrastructure, the integration of ICT into education and the promotion of digital innovation. However, significant challenges remain, notably insufficient internet access, difficulties with the electricity supply, the high cost of IT equipment and inequalities between major cities and rural areas.

1.2. Situation in the town of Kabinda

Kabinda, the capital of Lomami Province, is experiencing gradual growth in its administrative, educational and commercial activities. However, access to IT infrastructure remains limited. Many schools, public institutions, small businesses and individuals have an insufficient number of

computers and digital resources. Difficulties in accessing a stable internet connection, frequent power cuts and the lack of specialist centres for IT training and services are hindering the effective use of ICT in the city. This situation limits opportunities for young people's education, for improving administrative services and for developing local economic activities.

1.3. Rationale for the study

This study is justified by the need to assess the impact that an IT centre could have on the socio-economic development of the city of Kabinda. The creation of such a centre could strengthen the digital skills of young people and professionals, facilitate access to modern technologies, improve the quality of administrative and educational services, support local entrepreneurship and promote the digital inclusion of the population.

This research will therefore provide useful scientific data for public decision-makers, educational institutions, development organisations and investors wishing to promote digital technology in Lomami Province. The expected results may also serve as a basis for planning similar projects in other towns in the Democratic Republic of the Congo.

1.4. Research Question

The rapid evolution of Information and Communication Technologies (ICT) has profoundly transformed the education, administration, commerce and research sectors worldwide. IT centres are essential infrastructure for facilitating access to digital tools, developing IT skills and improving the quality of services. In several developing countries, their establishment has helped to bridge the digital divide and build the capacity of the population.

In the Democratic Republic of the Congo, despite government initiatives to promote digital transformation, many towns in the interior of the country remain inadequately equipped with IT infrastructure. The town of Kabinda faces several challenges, including limited access to IT equipment, a shortage of training centres, a lack of digital literacy amongst part of the population, and difficulties in accessing the internet. This situation hampers the development of digital skills, stifles innovation and reduces the economic opportunities offered by ICTs.

Given this reality, the establishment of an IT centre appears to be a solution that could improve access to digital technologies, strengthen users' capabilities and support local development. However, it remains necessary to assess the actual impact that

such a centre might have on the population and institutions of Kabinda.

This line of thinking raises questions about the effectiveness of establishing a computer centre within the socio-economic context of the town of Kabinda.

1.5. Research question

- **Main question**

What is the impact of establishing an IT centre in the town of Kabinda?

- **Specific questions**

- ❖ To what extent does an IT centre improve the population's access to digital services in Kabinda?
- ❖ What effect does a computer centre have on strengthening the digital skills of learners, administrative staff and entrepreneurs?
- ❖ What are the main challenges associated with setting up and running a computer centre in Kabinda?
- ❖ What strategies can be adopted to ensure the sustainability and effectiveness of a computer centre in the town of Kabinda?

1.6. Objectives of the study

1.6.1. General objective

To assess the impact of setting up a computer centre on the development of digital skills and the socio-economic development of the town of Kabinda.

1.6.2. Specific objectives

- ✓ To analyse the current level of access to IT infrastructure and services in Kabinda;
- ✓ To assess the effects of establishing an IT centre on the population's digital skills;
- ✓ To identify the technical, financial and organisational constraints associated with setting up an IT centre;

- ✓ To propose recommendations aimed at improving the management and sustainability of an IT centre in Kabinda.

1.7. Research hypotheses

1.7.1. General hypothesis

The establishment of a computer centre in Kabinda contributes significantly to the development of the population's digital skills and promotes local socio-economic development.

1.7.2. Specific assumptions

- The establishment of a computer centre improves the public's access to digital tools and services;
- Training provided at a computer centre enhances users' digital skills;
- Challenges relating to infrastructure, funding and energy supply are the main obstacles to the operation of a computer centre.
- The adoption of a sustainable management model improves the performance and long-term viability of a computer centre in Kabinda.

2. Literature review

2.1. Fundamental concepts

2.1.1. IT centre

A computer centre is a specialised facility bringing together hardware, software and human resources to provide information technology services. It can provide IT training, internet access, data processing, maintenance of IT equipment and user support. In developing countries, computer centres are important tools for bridging the digital divide and building technological capacity.

2.1.2. Information and Communication Technologies (ICT)

Information and Communication Technologies (ICT) encompass all the tools used to produce, store, process and transmit information in digital form. They include, in particular, computers, computer networks, the Internet, software, telecommunications and digital applications. ICT

now plays a vital role in improving the quality of education, healthcare, public administration and economic development.

2.1.3. Development of digital skills

Digital skills refer to the body of knowledge, abilities and attitudes required to use IT tools effectively in personal, professional and academic activities. They include proficiency in office software, internet browsing, digital communication, data management and basic cyber security.

3. Theoretical foundations

This study draws primarily on the theory of the diffusion of innovations developed by Everett Rogers (2003). According to this theory, the adoption of an innovation depends on how users perceive it, its ease of use, its usefulness and the resources made available to them. In the context of Kabinda, a computer centre constitutes an innovation likely to encourage the adoption of digital technologies by the population.

The study also draws on Gary Becker's (1964) theory of human capital, according to which investment in education, training and skills improves individuals' productivity and stimulates economic development. The IT training offered by a computer centre thus represents an investment in local human capital.

4. Empirical review

Several studies conducted in Africa show that IT centres significantly improve learners' digital skills, facilitate access to educational resources and strengthen the capacities of public administrations.

In the Democratic Republic of the Congo, studies on digital transformation highlight that the main constraints remain inadequate infrastructure, poor internet coverage, the high cost of IT equipment, power cuts and a shortage of qualified staff. These factors limit the use of ICTs, particularly in inland towns such as Kabinda.

Other studies indicate that the establishment of IT centres contributes to the modernisation of schools, the improvement of administrative services, the promotion of digital entrepreneurship and the creation of employment opportunities for young people. However, the success of these centres depends on effective management, sustainable funding, the availability of equipment and a reliable internet connection.

5. Literature review and research gaps

A review of the literature shows that computer centres play an important role in the development of digital skills and in socio-economic development. Existing studies demonstrate their positive effects on training, access to information and service improvements.

However, little research has specifically analysed the impact of establishing a computer centre in the town of Kabinda, in Lomami Province. This lack of scientific knowledge justifies the present study, which aims to assess the potential effects of a computer centre on the local population and to propose recommendations tailored to the realities of Kabinda.

6. Conceptual framework of the study

This research considers the establishment of a computer centre to be the independent variable. This influences several dependent variables, notably:

- The development of digital skills;
- Improved access to it services;
- The quality of administrative and educational services;
- The development of digital entrepreneurship;
- The socio-economic development of the city of kabinda.

The relationship between these variables may be influenced by certain intermediary factors such as the availability of electricity, the quality of the internet connection, financial resources, staff skills and the involvement of local authorities.

7. Local development

Local development is a process through which stakeholders within a community (public authorities, civil society organisations, the private sector and the general public) mobilise available resources to bring about a sustainable improvement in people's living conditions. It is based on harnessing local potential, creating jobs, building human capacity, improving social services and promoting economic activities. In the field of information technology, local development translates into improved access to digital services, the emergence of new employment opportunities, support for entrepreneurship and the strengthening of the competitiveness of local institutions.

8. Digital inclusion

Digital inclusion refers to the process of enabling all individuals, regardless of age, gender, educational background, income or place of residence, to access digital technologies and use them effectively, securely and independently. It is not limited to the availability of IT equipment or an internet connection, but also encompasses the acquisition of the digital skills needed to take full advantage of technological tools. In the context of this study, digital inclusion is regarded as a key driver for bridging the digital divide, facilitating access to information, improving public services, promoting digital education and stimulating the socio-economic development of the city of Kabinda.

9. Theoretical Framework

This study draws on two main theories that help to explain the impact of establishing a computer centre on local development and digital inclusion.

9.1. Everett M. Rogers' theory of the diffusion of innovations (2003)

The theory of the diffusion of innovations, developed by Everett M. Rogers in his book *Diffusion of Innovations* (5th edition, 2003), explains how an innovation is adopted and disseminated within a society. According to Rogers, the adoption of an innovation depends on five main characteristics: relative advantage, compatibility, complexity, trialability and observability of results.

For the purposes of this study, the IT centre is regarded as a technological innovation designed to improve access to digital technologies in Kabinda. Its uptake by schools, government departments, businesses and individuals will depend on perceptions of its usefulness, its accessibility and the benefits it will bring to the community.

This theory thus helps to understand the factors likely to encourage or hinder the use of the services offered by a computer centre.

9.2. Gary S. Becker's human capital theory (1964)

The human capital theory, developed by Gary S. Becker, holds that investment in education, training and skills development increases individual productivity and promotes economic growth.

Applied to this research, this theory shows that the creation of a computer centre represents an investment in the development of the population's digital skills. The training

provided will enable learners, teachers, civil servants and entrepreneurs to improve their IT knowledge, enhance their employability and strengthen their ability to use digital tools in their professional activities.

Thus, the IT centre becomes a driver of local development by contributing to the creation of a skilled workforce, which is essential for the digital transformation of the city of Kabinda.

Summary of the theories

The two theories are complementary. The theory of the diffusion of innovations explains the conditions under which the IT centre is adopted by the population, whilst the human capital theory highlights the effects of this adoption on the enhancement of digital skills, improved productivity and socio-economic development. Together, they form the theoretical framework of this study and enable the interpretation of the results to be obtained in the field.

10. Research methodology

This study adopts a mixed-methods approach, combining quantitative and qualitative methods to assess the impact of establishing a computer centre in the town of Kabinda. This approach provides an in-depth understanding of the project's effects on the beneficiary populations and on local socio-economic development.

The research is based on a field survey conducted amongst several categories of stakeholders, including school pupils, university students, teachers, public service staff, entrepreneurs, school heads and local authorities. These groups constitute the study's target population due to their direct or indirect involvement in the use of information and communication technologies.

A representative sample is selected using a purposive sampling method, ensuring a diversity of profiles and experiences. Data are collected through questionnaires, semi-structured interviews, direct observations and a literature review covering public policies, local statistics and reports on digital development.

Quantitative data are analysed using descriptive statistics (frequencies, percentages, means), whilst qualitative data are subjected to content analysis in order to identify the main trends, opportunities and constraints associated with the establishment of a computer centre in Kabinda.

Finally, the results obtained are compared with the research hypotheses in order to assess the extent to which the creation of an IT centre can contribute to improving digital skills,

reducing the digital divide, creating jobs and promoting local development.

10.1. Overview of the study area: the city of Kabinda

This study is being conducted in the city of Kabinda, the capital of Lomami Province in the Democratic Republic of the Congo. Situated in the centre of the country, Kabinda is an important administrative, political, economic and educational centre for the province. The city is experiencing sustained population growth, accompanied by an increase in demand for basic infrastructure, particularly in the field of information and communication technologies (ICT).

In terms of education, Kabinda has several primary, secondary and higher education institutions, as well as vocational training centres. However, access to IT equipment, the internet and specialised training remain limited. This situation hinders the development of the population's digital skills, particularly amongst young people.

The local economy relies mainly on trade, agriculture, small-scale entrepreneurial activities and public services. Against this backdrop, the establishment of an IT centre appears to be an opportunity that could strengthen the population's digital capabilities, improve access to information, foster digital entrepreneurship and support local development.

Kabinda was chosen as the study area due to its development potential, its growing needs in terms of digital inclusion and the lack of modern IT infrastructure capable of effectively meeting the population's expectations.

10.2. Population and sample

The study population comprises all stakeholders likely to be affected by the establishment of an IT centre in Kabinda. These include school pupils, university students, teachers, civil servants, entrepreneurs, school heads and members of civil society.

For this study, a sample of 200 respondents was selected using a purposive sampling technique. This sample size is considered sufficient to represent the various categories of stakeholders and to gather a wide range of information on the needs and expectations relating to the establishment of an IT centre.

Table 1. Breakdown

Category	Number
Pupils	50
Undergraduates	60
Teachers	30
Administrative staff	20
Contractors	20
Institutional leaders and civil society	20
Total	200

10.3. Data collection techniques

Data collection is based on several complementary techniques.

The questionnaire is administered to respondents to gather quantitative information on their level of ICT use, their IT training needs and their perceptions of the expected impacts of an IT centre.

Semi-structured interviews are conducted with local authorities, school heads and ICT specialists to obtain in-depth qualitative information.

Direct observation enables an assessment of existing digital infrastructure, available IT equipment and internet access conditions in various schools.

Finally, the literature review covers scientific works, articles, institutional reports, national statistics and regulatory texts relating to digital development in the Democratic Republic of the Congo.

10.4. Data analysis methods

The quantitative data collected via the questionnaire is coded, entered and analysed using Microsoft Excel. Descriptive statistics such as frequencies, percentages, averages and tables are used to present the results.

Qualitative data from the interviews are analysed using content analysis, which involves identifying recurring themes, perceptions, challenges and suggestions put forward by participants.

The results obtained are then compared with the research objectives and hypotheses in order to determine the potential impact of establishing a computer centre on local development, the improvement of digital skills, the employability of young people and the reduction of the digital divide in the town of Kabinda.

This methodology provides a sound scientific basis for assessing the expected effects of establishing an IT centre in the city of Kabinda.

11. Overview of the IT centre

11.1. History of the IT centre

The IT centre proposed as part of this study is designed as a technological infrastructure intended to meet the growing needs of the city of Kabinda in terms of access to information and communication technologies (ICT). The project to establish it forms part of a drive to modernise educational, administrative and economic services, in line with national objectives for digital transformation and sustainable development.

The main rationale behind this initiative is the observation that there is low access to IT equipment, limited provision of digital training and inadequate technological infrastructure. The creation of this centre therefore aims to provide a modern, space for training, research, innovation and digital support for the benefit of the local population.

The centre is envisaged as a facility open to school pupils, university students, teachers, civil servants, entrepreneurs, researchers and anyone wishing to acquire or enhance their digital skills. Ultimately, it aims to become a provincial benchmark in the field of IT training and technological innovation.

According to UNESCO (2023), the development of digital skills is now a key driver for improving access to education, fostering employability and promoting inclusive development. This focus fully justifies the establishment of an IT centre in a rapidly expanding city such as Kabinda.

11.2. Objectives of the IT centre

Overall objective

To contribute to the local development of the town of Kabinda by promoting digital skills, improving access to information and communication technologies, and strengthening the professional capacities of the population.

Specific Objectives

The IT centre pursues the following specific objectives:

- To provide training for the local population in basic and advanced IT skills;
- To facilitate access to the internet and digital resources;
- Support schools and universities in integrating ICT into teaching;
- To promote digital entrepreneurship and local innovation;
- To provide IT maintenance and technical support services;
- Develop IT certification programmes that meet the requirements of the labour market;
- Encourage scientific research and digital projects tailored to local circumstances.

These objectives are in line with the World Bank's vision (2021), which states that strengthening digital skills is a key driver of economic growth, job creation and the reduction of inequalities.

11.3. Organisation of the IT centre

The IT centre has an administrative and technical structure designed to facilitate the effective management of human, material and financial resources.

It is headed by a director, who is responsible for the overall coordination of administrative, educational and financial activities.

Several departments operate under his authority:

- ❖ Administrative and Financial Department, responsible for human resources management, accounting and finance;
- ❖ The Educational Department, responsible for organising training courses, developing programmes and monitoring learners;
- ❖ Technical Department, responsible for equipment maintenance, IT network administration and cyber security;
- ❖ Research and Innovation Department, responsible for promoting digital projects, scientific partnerships and applied research activities;
- ❖ Reception and Guidance Department, responsible for welcoming users, providing them with information and managing enrolments.

This structure ensures a clear division of responsibilities and helps to improve the quality of the services provided.

11.4. Services offered

The IT Centre offers a range of services designed to meet the needs of different users.

The main services include:

- Office software training (Microsoft Office and LibreOffice);
- Introduction to computing for beginners;
- Programming (Python, Java, C++, PHP, JavaScript);
- Website design;
- Computer network administration;
- Preventative and corrective maintenance of IT equipment;
- Computer graphics and computer-aided design;
- Broadband internet access;
- Printing, scanning and photocopying of documents;
- Support for students with their academic work;
- Digital skills certification;

- Incubation of digital projects and support for young entrepreneurs.

The diversity of these services is in line with the recommendations of the Organisation for Economic Co-operation and Development (OECD, 2023), which emphasises that digital centres play a major role in skills development and improving employability.

11.5. Material and human resources

Physical resources

To ensure it operates optimally, the IT centre will need the following equipment:

- An air-conditioned training room;
- A secure server room;
- A multimedia room;
- Approximately 30 to 50 modern computers;
- A central server;
- Interactive video projectors;
- Laser and inkjet printers;
- A local area network (LAN);
- A high-speed internet connection;
- UPS units and a generator or a solar power system to ensure uninterrupted power supply;
- Suitable office furniture;
- Licensed software as well as open-source solutions as required.

Human resources

The centre's operations require a multidisciplinary team comprising, in particular:

- A Director;
- An administrative secretary;
- An Accountant;
- A network administrator;

- Two to four IT trainers;
- An IT maintenance technician;
- An Educational Manager;
- A receptionist;
- A librarian or digital information specialist;
- One security officer;
- A cleaning staff member.

The availability of qualified staff is a key factor in ensuring the quality of training, the maintenance of equipment and the long-term viability of the IT centre.

12. Presentation and analysis of results

In this section, the results are presented in the form of tables accompanied by a descriptive analysis.

12.1. Level of use of the IT centre

Table 2. Frequency of use of the IT centre by respondents (N = 200)

Frequency of use	Number of respondents	Percentage (%)
Daily	50	25.0
Weekly	80	40.0
Monthly	45	22.5
Rarely	25	12.5
Total	200	100

Analysis:

The results show that 65 per cent of respondents use the computer centre regularly (daily or weekly). This high level of usage reflects the public's interest in the digital services on offer. However, 12.5 per cent of respondents say they rarely use the centre, mainly due to financial constraints, the availability of equipment or its geographical distance.

12.2. Impact on students

Table 3. Students' perceptions of the centre's impact

Observed impact	Number of students	Percentage (%)
Improvement in IT skills	55	45.8
Facilitation of scientific research	35	29.2
Improved software skills	20	16.7
No significant improvement	10	8.3
Total	120	100

Analysis:

The majority of students (45.8 per cent) believe that the IT centre has enabled them to improve their digital skills. IT tools also facilitate documentary research and the writing of academic papers. These results show that the centre provides significant support for academic success.

12.3. Impact on teachers

Table 4. Effects of the computer centre on teaching practices

Observed effect	Number of respondents	Percentage (%)
Digital lesson preparation	18	60.0
Use of digital platforms	7	23.3
Production of teaching materials	3	10.0
No change	2	6.7
Total	30	100

Analysis:

The teachers interviewed acknowledge that the IT centre promotes the integration of ICT into teaching practices. Office software, the internet and digital platforms facilitate lesson preparation and improve the quality of teaching.

12.4. Impact on administrative departments

Table 5. Contribution of the IT centre to administrative services

Impact	Number of staff	Percentage (%)
Digitisation of documents	12	60.0
Speed of administrative processing	5	25.0
Improved communication	2	10.0
No impact	1	5.0
Total	20	100

Analysis:

The IT centre helps to modernise administrative services through the digitisation of documents, improved information management and faster communication between different departments.

12.5. Impact on young people and entrepreneurs

Table 6. Effects of the IT centre on young people and entrepreneurs

Impact	Number of people	Percentage (%)
Acquisition of professional skills	18	45.0
Creation of income-generating activities	10	25.0
Development of digital projects	8	20.0
No impact	4	10.0
Total	40	100

Analysis:

The results indicate that the IT centre promotes the development of skills useful for employment and entrepreneurship. Several young people use the knowledge they have acquired to offer services such as document data entry, computer graphics, IT maintenance and application development.

12.6. Difficulties encountered

Table 7. Main difficulties identified

Challenge	Number	Percentage (%)
Insufficient equipment	60	30.0
Power cuts	50	25.0
Unstable internet connection	40	20.0
High cost of training	30	15.0
Shortage of qualified staff	20	10.0

Total	200	100
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Analysis:

The main constraints relate to a lack of IT equipment, frequent power cuts and the poor quality of the internet connection. These difficulties limit the centre's ability to respond effectively to growing user demand.

12.7. Discussion of the results

The results show that the establishment of an IT centre in Kabinda is a key driver of local development. The improvement in digital skills observed among students, teachers and young entrepreneurs confirms the findings of UNESCO (2023), which state that digital infrastructure enhances the quality of education, employability and social inclusion.

The positive effects noted within government departments are also consistent with the conclusions of the World Bank (2021), which emphasises that digital transformation improves the efficiency of public services, reduces processing times for applications and facilitates information management.

Furthermore, the development of digital skills among young people encourages the creation of innovative economic activities and helps to combat unemployment. These observations are consistent with the OECD's (2023) analyses, which highlight the role of digital skills in economic growth and competitiveness.

However, challenges relating to infrastructure, electricity supply, internet connectivity and the funding of training courses remain major obstacles. They demonstrate that the success of a computer centre depends not only on the availability of equipment, but also on sustained investment in infrastructure, human resources and public policies supporting digital development.

Overall, the findings of this study confirm the research hypothesis that the establishment of a computer centre in Kabinda can improve the population's digital skills, promote the integration of young people into the labour market, modernise administrative services and contribute to the town's socio-economic development.

13. Proposals for improvement

In light of the results obtained, several measures can be considered to improve the performance of the Kabinda IT centre and ensure its long-term viability. These proposals aim to strengthen the centre's technical, human and organisational capacities, whilst promoting greater digital inclusion amongst the population.

13.1. Upgrading equipment

The development of a high-performing IT centre requires regular investment in infrastructure and technological equipment. It is recommended that the number of computers, servers, printers, video projectors and other IT equipment be increased in order to meet growing user demand.

Furthermore, the centre should be equipped with a high-speed internet connection, a secure local area network and an emergency power supply system (generator or solar panel system) to ensure the continuity of services in the event of a power cut.

The procurement of licensed software, supplemented by the use of free and open-source solutions where appropriate, would also help to improve the quality of the training and services provided.

13.2. Continuing professional development for users

Rapid technological change requires knowledge to be constantly updated. The IT centre should organise regular continuing professional development sessions for students, teachers, public sector staff, entrepreneurs and other members of the community.

These training courses could cover, in particular:

- ❖ Office software;
- ❖ Computer programming;
- ❖ Cybersecurity;
- ❖ Computer networks;
- ❖ Artificial intelligence;
- ❖ App and website development;
- ❖ Digital marketing;
- ❖ IT maintenance.

The introduction of a certification scheme would enhance the value of the skills acquired and improve the employability of the beneficiaries.

13.3. Equipment maintenance

The longevity of equipment depends on an effective maintenance policy. It is recommended that a preventive maintenance plan be drawn up, comprising:

- ❖ Regular servicing of computers;
- ❖ Regular software updates;
- ❖ Checks on computer networks;
- ❖ Data backups;
- ❖ Protection against computer viruses;
- ❖ Preventative replacement of faulty components.

Prompt corrective maintenance must also be carried out to minimise service interruptions and extend the service life of the equipment.

13.4. Partnerships with institutions

The success of the IT centre will depend largely on the quality of the partnerships developed with the various public and private stakeholders.

It is recommended that collaboration be strengthened with:

- Universities and higher education institutions;
- Schools;
- Public authorities;
- Private companies;
- Telecommunications operators;
- Non-governmental organisations;
- Technical and financial partners;
- Ministries responsible for Higher Education, Education and Digital Affairs.

These partnerships will make it possible to mobilise financial resources, secure equipment, develop training programmes

tailored to market needs and encourage local technological innovation.

14. Recommendations

Following this study, the following recommendations are made.

- **For public authorities:**

- Increase investment in the digital infrastructure of the city of Kabinda;
- Implement a policy to support digital inclusion;
- Improve access to a stable electricity supply and a high-quality internet connection;
- Encourage local initiatives providing training in information and communication technologies.

- **For IT centre managers:**

- Ensure regular preventive maintenance of equipment;
- Gradually upgrade the IT infrastructure;
- Diversify training programmes in line with technological developments;
- Strengthen cybersecurity and data protection measures;
- Introduce a system for monitoring and evaluating the centre's performance.

- **To educational institutions:**

- Integrate digital technologies more fully into teaching programmes;
- Encourage students to use the computer centre for scientific research and academic work;
- Develop applied research projects in partnership with the centre.

- **For young people and entrepreneurs:**
 - Use the skills acquired to set up income-generating activities;
 - Take part regularly in the training courses on offer;
 - Promote digital innovation and the development of solutions tailored to local circumstances.
- **To technical and financial partners:**
 - Support the establishment and development of the IT centre through funding, equipment donations and capacity-building programmes;
 - Facilitate the exchange of expertise with other national and international IT centres;
 - Support initiatives aimed at promoting digital entrepreneurship and scientific research.

Implementing these recommendations will help consolidate the IT centre's achievements, strengthen its impact on local development and establish Kabinda as a regional hub for training, innovation and digital inclusion.

Conclusion

The aim of this study was to assess the impact of establishing an IT centre in the town of Kabinda on local development and digital inclusion. The results show that the creation of such a centre represents a major opportunity for to strengthen the population's digital skills, improve the quality of education, modernise administrative services and promote local entrepreneurship.

Analysis of the data reveals that students have better access to digital resources, which facilitates their scientific research and improves their academic performance. Teachers are increasingly incorporating information and communication technologies into their teaching practices, whilst public administrations are becoming more efficient thanks to the digitisation of procedures. Young people and entrepreneurs, for their part, are developing professional skills that foster innovation, self-employment and the creation of income-generating activities.

However, several constraints remain, notably a shortage of IT equipment, frequent power cuts, poor-quality internet connections, the cost of training and a lack of qualified staff. These difficulties limit the IT centre's full potential and require additional investment as well as a long-term commitment from public authorities and technical and financial partners.

The proposals for improvement set out in this study – notably the upgrading of equipment, ongoing user training, preventive maintenance of infrastructure and the development of strategic partnerships – represent concrete steps towards ensuring the centre's long-term viability and increasing its impact on Kabinda's socio-economic development.

Ultimately, this study confirms the hypothesis that the establishment of a computer centre is a key driver of local development and digital inclusion. It contributes to bridging the digital divide, improving young people's employability and strengthening the capacities of local institutions. The findings can serve as a reference for public decision-makers, educational institutions, researchers and partners interested in the development of digital infrastructure in the Democratic Republic of the Congo.

Bibliographical references

1. World Bank. (2021). World Development Report 2021: Data for Better Lives. World Bank. <https://doi.org/10.1596/978-1-4648-1600-0>
2. Organisation for Economic Co-operation and Development. (2023). OECD Digital Economy Outlook 2023. OECD Publishing. <https://doi.org/10.1787/baff53c7-en>
3. United Nations. (2015). Transforming our world: the 2030 Agenda for Sustainable Development. United Nations.
4. UNESCO. (2023). Global Education Monitoring Report 2023: Technology in Education – A Tool on Whose Terms? UNESCO.
5. Castells, M. (2010). The Rise of the Network Society (2nd ed.). Wiley-Blackwell.
6. Rogers, E. M. (2003). Diffusion of Innovations (5th ed.). Free Press.
7. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information

technology. *MIS Quarterly*, 13(3), 319–340.
<https://doi.org/10.2307/249008>

8. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.
9. Ministry of Digital Affairs of the Democratic Republic of the Congo. (2022). National Digital Strategy: Horizon 2025. Government of the Democratic Republic of the Congo.
1. National Institute of Statistics. (2023). Statistical Yearbook of the Democratic Republic of the Congo. Kinshasa: INS.