# Digitizing Urban Transport Services and Improving Service Quality: A Single-Case Study

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**ABSTRACT:** Digitization is transforming urban transport systems, facilitating access to real-time information, optimizing routing and traffic management, and encouraging a sharing economy that replaces traditional vehicle ownership models. In this article, we discuss how digitization helps to solve out urban transport problems, while highlighting the main challenges cities face in implementing these technologies. A qualitative methodological approach is used to come out with sound results and deep discussions. The main findings depict that digitalization has enabled Yango to optimize its management processes, reduce operational costs, and improve the quality of its services. The platform has facilitated bookings, fee management, and communication between customers and drivers. Real_time data collection has also allowed the company to better understand its customer's travel habits, enabling them to personalize their needs.

**KEYWORDS:** digitization, urban transport, technologies, routing, traffic management, traditional models.

## INTRODUCTION

The recent introduction of digital technology into the economic activities of African cities has significantly impacted urban transport. We are now witnessing a form of digitalization that is increasingly affecting so_called informal transport, particulary motocycle taxis (mototaxis), which are very active in sub_saharan Africa. This ongoing transformation of this mode of collective transport is accompanied by effects on the organization of the activity, the types of users, and the way the area is served. Having arrived about a decade ago, the smartphone has now become part of our daily lives and, for some, is the preferred tool for carrying out various types of activities (email, research, social media).

This tool brings new solutions, particulary in the field of mobility where mobile applications are transforming the dissemination of information and enhancingthe accessibility and reliability of transportation means. The role of digital technology is constantly evolving and transforming consumption habits and behaviors.

These innovations are at the origin of the creation of new Information and Communication Technologies (ICT) in the 1970s (Napo, 2014). The technologies are no longer the preserve of developed countries. The African continent is also affected, having taken « a significant step in adopting and using ICT, demonstrating a growing interest in these new technologies, especialy the mobile phone ». Technological revolutions applying ICT continue to emerge. The transport sector is also impacted by these ICT applications, particulary urban transport in Sub_Saharan Africa by urbarisation (Tossou, 2020).

The USA introduced digital technology into transportation through the uber model, which made it easier to order a car online from home. Similary, the company Gozem, modeled on Uber in the United States, has introduced digital technology into urban transportation in Lome, Togo. Given the digitilization in the the transport sector, Ghana and Cote d'Ivoire use Yango to facilitate fast and secure customer travel. Following these countries, this company was launched in Cameroun on November 15th, 2021, and has been operating in only 2 cities; Douala and Yaounde; and now in Bafoussa. Its aim is to solve part of the urban transport problem, which is only traditional and adequately guarantee population safety, but has existed for several years in many countries in Central Asia, Europe, the Middle Eeast, and Africa (Angola, Senegal, Cote d'Ivoire, etc…). Several observations highlight the deficit in

urban transport means. Indeed, Cameroonian cities have transport equipment, even if these do not fully meet the enormous needs of the population. The transport means used are low_capacity shared taxis, motorcycle taxis (which unfortunately fail to adequately meet demand, especialy during rush hours), trucks and buses. Motorcycle taxi drivers or « bend_skinners » do not respest prescribed laws and drive dangerously. Being the cause of numerous accidents (speeding, lack of driving licences in over 80% of them, disregard for traffic rules, theft, assaults on passengers, etc…), they have been pursued by municipal authorities for many years to enforce compliance with regulations. This includes obtaining an appropriate driver's license and vehicle papers, so they operate only in designated areas (Mvondo, 2006).

In this context, the research problem is to understand how the digitalization of urban transport services can omprove service quality? More specifically, this research aims to examine the key aspects of digitalization that can enhance urban transport service provision and to measure the extent to which users perceive these improvements. The ogjectives of this research are multiple. First it aims to identify the key aspect of digitalization that can improve urban transport service provision. Second, it seeks to measure user's perception of these improvements. Finally, it explores potential limitations or obstacles to the digitalization of urban transport services.

This article consists of several parts, including a literature review on digitalization and its impacts on urban transport services, a presentation of the research methodology, an analysis of the results, managerial implications, and the research limitations.

The outline we will know now follow to present the elements justifying the first comprises two (2) parts: the first part will be devoted to the conceptual approach to digitalization and transport service quality. Starting with a brief overview of the concepts of transport service digitalization and its evolution, we will then determine the link between these to concepts. The second part will be devoted to the practical study between transport service digitalization and service quality. This will begin with the presentation of the adopted metodological approach, and conclude with the presentation and discussuin of the study results.

## 1. LITERATURE REVIEW

The foundation of our study is established by the literature review. More broadly, it appears that authors agree on the idea that digitalization can be a vector for improving service quality. It contributes to better management of the entire urban transport system and offers a smoother, more transparent user experience.

Gado (2019): his study aims to analyse the service quality of SOTRAL transport in order to formulate functional prosposals. This analysis is conducted from two perspectives: the provider universe relating to the quality of service offered, and the customer universe related to the perceived and expected service. It is based on an analysis focused on six services quality criteria (passenger, information, punctuality, customer service, journey time budget, comfort and cleanliness) as well as the strengths and areas for improvement of the various concession agreements. The core problem is the the decline in network ridership. For data collection, he adopted a standard methodology. This relies on desk research, field observation, semi_structured interviews, and finally, the administration of a questionnaire to four types of target populations distinguished as follows: regular users of standard lines, habitual users of student lines, potential users of standard lines. The analysis revealed constraints related to the sustainable operation of its line network, the perceptions and feelings of regular customers regarding the quality of service offered, and the barriers to modal shift for potential customers. His study highlights the limitations of the concession agreement, congestion, the poor condition and faillures of the road network, and usage conflicts over transport spaces (stops, terminals…) between SOTRAL operating staff and other users. These dysfunctions negatively impact service quality, making the question of its sustainaibility a critical issue.

Gustave S. Mengué (2010) explores the challenges of urban transport in Africa, using concrete examples from Cameroon, including Douala. He argues that the poor quality of transport provision in Africa is due to structural problems, such as administrative dysfunction, market failures, shortcomings in urban planning, and corruption. He also emphasizes that the city of Douala faces a lack of coordination between different modes of transport, making it difficult to integrate public transport into the overall framework of urban planning. The author adopted a theoretical approach to examine the challenges of urban transport in Africa, including Douala. The results showed that transport problems were linked to broader structural issues. The lilitations of his study are that it focuses on a specific city ( Douala) and does not account for differences between African countries.

Christian Darkaoui (2012) examines mobility problems in the city of Douala, including the poor quality of transport service provision. He highlights the need for Douala's decision_makers to implement an integrated and coordinated transport policy to solve transport problems, including road congestion, delays, and accidents. He also suggests that the city could use advanced technologies to monitor and manage the transport service. The author conducted an empirical study to examine mobilityproblems in Douala. The results showed that the city needed an integrated and coordinated transport policy to solve its transport problems. The limitations of this study are that it focuses solely on Douala and does not account for differences between African cities.

Subsequently, Kepawou Kenmoe (2019), in his study conducted in Cameroon, primarily in Bafoussam, aimed to undertake a **focused study** on the possibility of developing urban transport networks in African and more specifically in Cameroon. However, most African cities suffer from a lack of urban transport means, dominated by **informal transport.** It is within this context that our proposals and our project fit, aiming to improve transportation conditions in Bafoussam. This involves conducting analytical and diagnostic studies of the supply and demand for transport in the city, including analyzing the institutional and regulatory framework

of thetransport and mobility sector in the city on the one hand, and on the other hand, implementing a bus network which requires numeruous supporting measures for its success. The objective is to provide the population of Bafoussam with a strutured means of transportation to promote mass transit, which constitutes an **emerging market** attracting transport operators and contributing to the city's development. The methodological approach used in this study follows a four_steps process: documentary research ; observation and collection of qualitative and quantitative data on urban public transport and the establishment of bus networks ; reports on the activities of urban transport and mobility institutions ; analysis and processing of the collected data ; and finally, synthesis of the results. The lack of technical data within the intitutions responsible for transport and mobility constitutes the primary obstacle to the realization of this project. This study will face lilitations insofar as there is no channel/mechanism to propmt public authoroties to implement the recommended proposals.

Mouanda et al. (2020), identify opportunities such as improved fleet management, optimized route planning, didgital fare management, and dynamic pricing. However, the authors also highlight the challenges related to implementing these solutions, including high costs and problems with technology access for urban transport operators. The digitalization of urban transport services in Cameroon offers opportunities to improve the efficiency and quality of urban transport services. However, high costs and limited access to technology pose challenges to implementation. The study suggests that national policies should be developed to facilitate the adoption of digitalization in urban transport srevices.

In a study conducted by Bilong et al. (2021) showed that adopting digitalization in urban transport services in Douala can improve user satisfaction. Users of digitized services reported a better perception of transport services in terms of comfort, safety, wainting time, availability of transport information, punctually, and overall quality compared to users of traditional services. These results suggest that digitization is a viable solution for improving service qualitity and user satisfaction in urban transport service in Africa. We have a principle found sereval authors who have made the link between the digitization of transport services and service quality. Bernard Jacob (2016) discusses the various evolutions that digitization brings to the logistics and transport sector. The author specifically addresses the challenges related to new consumption modes, such as e_commerce, which require ever faster and more efficient transport and delivery solutions. He also describes how digital technologies enhance collaboration and connectivity between the different actors in the supply chain, from inventory management to delivery.

Jacques Bulchand Gidunzi (2017) analyzes the various trends related to digitalization in the internet of things for vehicle monitoring, fleet management systems, and geolocation technologies. The the author notably addresses the benefits that digitalization can bring to transport companies, such as better resource optimization, cost reduction, and improved road safety, as data collection and analysis for better management of transport flows. Alassane Bah (2019) explores the various transformations that digitalization brings to the transport sector in Sub_Saharan African. The author describes in particular how technologies have enabled the development of shared mobility services and facilitated access to transport in African cities. He also emphasizes the need to strengthen the capacities of local stakeholders to enable a transition towards more sustainable and efficient mobility.

Mohamed Mezghani (2019) analyzes the various implications of digitalization on the quality of transport services. The author notably addresses the benefits that digitalization can bring to users, such as better real_time information on transport schedules or the possibility to book and pay directly from their smartphone. He also underlines the importance of taking into account the needs of different users to ensure better services quality.

These various studies converge to emphasize that digitalization can significantly improve the quality of efficient service management, reducing waiting times, increasing safety, and providing a more comfortable travel experience.

## 2.    METHODOLOGY

This section presents the methodology implemented to archive the research objective. We conducted individual interviews with various stakeholders in the urban transport sector, such as representatives from municipalities, public transport operators, and private transport service providers. We also observed users of these various transport services in their daily lives.

### 2.1.    Field Surveys

Field surveys involved interviews conducted with Yango staff to gather useful information about the Yango transport process and the benefits this service brings to urban transportation in the city of Douala. For our study, we interviewed eight (8) participants, including 5 Yango customers, 2 Yango drivers, and one Yango manager. Following the lexical analysis of the collected interviews, we obtained the contextual word cloud of figure 1, which reveals the specific topics discussed by each interviewee. From this word cloud, the repeated occurrence of the words « digitalization, application, application, application, application, appliacation, communication, and application » is evident, as the topic engaging our participants was "Digitalization of Urban Transport Services and Improvement of Service Quality: The Case of Yango ».

**Table 1 : Respondent characteristics**

| Participant | Gender | Age | Role | Tenure with the company |
|---|---|---|---|---|
| P1 | M | 34 years | Yango customer | 2 years |
| P2 | F | 27 years | Yango customer | 2 years |

| P3 | M | 34 years | Yango staff | +2 years |
|----|---|----------|-------------|----------|
| P4 | F | 31 years | Yango customer | +1 year |
| P5 | F | 32 years | Yango customer | 1 year |
| P6 | M | 33 years | Comfort+driver | +2 years |
| P7 | M | 30 years | Customer | 1 year |
| P8 | M | 29 years | Motocycle rider | 2 years |

**Source :** Our surveys

## 2.2. Data Processing and Analysis of Results

Content analysis is the most widespread method for studying interviews or qualitative observations. The pioneer of this qualitative analysis method is Berelson (1952). He considers it a technique well_suited for Bardin (2003), it involves collecting and processing linguistic materials. These materials may have been collected throuhg surveys or interviews, or they can be « natural » materials gathered for research purposes, such as newspaper articles, narratives, testimonies, political, speeches, literary works, etc… Furthermore, it is a set of methodological tools in constant refinement, applicable to extremely diverse « discourses » and based on deduction as well as inference. It is an interpretive effort that balances between two poles: on the one hand, the rigor of objectivity, and on the other, richness and subjectivity (Bardin, 2003).

Walin (2007) indicates that thematic content analysis differs from syntactic or lexical content analysis in that it is based on units of meaning or significance rather than being carried out from the structure of the discourse. For him, content analysis consits of segmenting them into homogeneous, relevant, exclusive, exhaustive, and objective categories. Gravitz (2001) defines categories as « meaningful headings, according to which the content will be classified ».

According to Jolibert and Jordan (2011), thematic content analysis involves establishing an analysis grid that synthesizes all the interview questionnaires. Only the categories or classes that will be used for data coding will be predetermined by the researcher: « the therefore do not emerge directly from reading the raw information ». The main characteristic of this analysis, according to the authors, is that it is: « preexisting to the experimentation and results either from a local theory adjusted to a particular research field or from a general theory ».

The process of thematic content analysis is quite simple. It involves synththesizing all the information gathered during the interviews into a single table where the interviews are listed in colomns and the categories in rows. Each cell contains elements from the interviews associated with a particular theme. The processing and analysis of the data enabled us to obtain results concerning the functioning of the Yango application and customer opinions about this application.

## 3. RESEARCH RESULTS

Launched in Douala in 2021, the Yango platform, is a "service on demand" platform. The platform has an intuitive mobile application that conects the customer and the driver. Using the technology_based transport platform is possible via smartphones and the internet. Our interviews revealed that digitalization has had a significant impact on how urban transport services are offered and used. Public transport services providers have had to adapt by offering mobile application for trip booking, as well electronic payment systems. Municipalities have also worked to create open data platform to enable developers to create decision_making tools for public transport users.

Furthermore, digitalization has encouraged the emergence of new players in the transport sector, such as ride_hailing services (VTC) and free_floating e_scooter services. These new players have raised regulatory and safety issues, which municipalities have had to address by creating new laws and regulations to govern these new services.

### 3.1. Users Accessing Digitized Transport Services

The rapid development of ICT (Information and Communication Technologies) is reflected in the widespread adoption of mobile telephony worlwide. No continent is spared. According to a study by Goldman Sachs Investment Bank (2020), 75% of the world's population uses a mobile phone and 70% uses a smartphone. The development of supply, lower production costs, and the emergence of new competitors in the mobile phone sector have driven down the price of mobile phone.

By observing the users of these various transport services, we found that most users welcomed the digitalization of urban transport services, particulary self_service offerings that provide greather flexibility and easier access to transport.

#### 3.1.1. Yango, a Digitized Transportation Service

The Yango company leverages Information and Communication Technologies through the application it has developed. Both the driver and the passenger must have the application on their smartphone to place an order or receive an alert for a customer request. The process begins with creating a Yango account using the application. Yango is an urban transport company operating in several African countries. Before digitization, it had a transportation service that was not very efficient. Customers complained about the service quality and lack of innovation.

However, digitization, Yango has been able to significantly improve its service. It developed a mobile application that allows customers to oeder a vehicle quickly and easily. Additionally, Yango equiped its drivers with tablets to improve communication

with customers and optimize routes. The quality of the urban transport offering is a key element for customer satisfaction. The key elements of a quality transport service are : frequency of service, travel time, transport cost, safety, and service reliability. However, whitout digitization, it is difficult to guarantee a quality transport offering.

### 3.1.2. A Service Account Creation

Using Yango's services requires having the operational application on an Android phone or computer. A motorcycle or car driver who decides to work with the company must have the application on their Android mobile phone. If they are not proficient in using this application, a three_day training is provided at the company headquaters. A support unit exists at the management level to assist with installation and then usage of the application. The customer who wishes to order a Yango motorcycle, tricycle, or car must also have the application on their phone. The first step involves downloading ond installing the Yango application from the Google Play Store. Once the application is installed, tha customer creates an account an account. The account creation process is subdivided into the following seven steps:

❖ Downloading the mobile application: Users must first download the Yango application on their smartphone, which is available on iOS and Android platforms;

❖ Creating an account: Users must then create a Yango account and provide their name, phone number, and email address to be able to use the service;

❖ Ride Booking: User scan book a ride by entering their pickup location and destination. The app also allows them to choose the type of vehicle they want, such as a sedan or utility vehicle;

❖ Rael_time Tracking: User scan track their driver's arrival in real_time. The driver is also notified of the passeneger's exact location;

❖ Payment: Yango services also support online payment, allowing users to pay for their ride without using cash;

❖ Driver Rating: At the end of the ride, passengers can rate their driver and give feefback on the service.

Yango uses technology to provide an efficient, safe, and affordable transportation service. With its rating system, identification, real_time tracking, and online payment platform, Yango offers a convenient and high_quality experience for users. In short, the Yango transportation operating model is simple, safe, and easy to use thanks to its technology.

### 3.1.3. Yango Ride Booking Process

The Yango app must be pre_installed on a smartphone or computer. To do this, the customer launches the app by clicking on it with a single tap. The process involves seven successive steps to be executed one by one in order, as shown in the photos below.

After launching the application, the home page appears. In the top left corner, the three horizontal bars lead to the aplliacation menu, and the bell icon in the top right provides application notifications. Below this, the services offerd by the company are displayed. The last part of the imange shows the promortional page offered by the company.

Once the home page is displayed, the customer selects the desired service by clicking on it. After choosing the service, the system geolocates the customer based on their precise position at the moment of selection. A prompt labeled « Where are you going ? » appears at the bottom of the page. The customer clicks on it and enters their destination neighborhood.

The follwing step 3 asks to customer to enter the « departure location » and then confirm it using the gren bar at the bottom of the page. A new page appears (steps 4), where the customer is customer is asked to choose the type (e.g: motorcycle or car).

Once the transportation mode is selected, a connection is established between the customer and the nearby driver based on geographical proximity. In step 6, the drivers' identify is displayed to the customer, who then has the option to call them. At this point, the order is placed, and the customer can begin their errands.

#### 3.1.3.1. Digitized Transport Service

**Table 2 : Number of Occurrences**

| Word | Length | Count | Weighted percentage (%) |
|---|---|---|---|
| Transport | 9 | 8 | 4.14 |
| Communication | 13 | 6 | 2.90 |
| Services | 8 | 6 | 2.90 |
| Digitalization | 14 | 4 | 2.48 |
| The company | 12 | 4 | 2.48 |
| Improve | 9 | 3 | 1.89 |
| To improve | 11 | 2 | 1.24 |
| Technology | 12 | 2 | 1.24 |
| Data | 7 | 2 | 1.24 |
| Management | 7 | 2 | 1.24 |
| Operations | 10 | 2 | 1.24 |
| Processes | 9 | 2 | 1.24 |
| Quality | 7 | 2 | 1.24 |

**Source: Data analysis with NVivo 10**

**Figure 1 : Word Cloud**

The frequency table above shows how many times respondents mentioned transportation for the Yango platform, which appears here 8 times, representing 4.14%. communication appears 6 times with a percentage of 2.90%, which is equal to the percentage for service. This simply means that Yango uses fair communication with its customers to deliver quality and releiable service. The figure above provides the answer to the question : in your opinion, what is the digitalization of transport services ? It was observed that the most important words are : the service offered or provided by Yango through its digitized transport, and by establishing communication between the driver and the customer (i.e services, transport, communication and digitalization). This is why the Yango motorcycle driver tells us that « Digitalization transport services involves using technology to improve service quality by automating processes and enhancing communication ».

### 3.1.3.2. Yango's service Digitization Process

This section aims to outline the digitization process of the Yango platform's transport service.

**Table 3 : Occurrence Count**

| Word | Length | Count | Weighted Percentage (%) |
|------|--------|-------|-------------------------|
| Transport | 9 | 20 | 2.60 |
| Digitization | 12 | 10 | 1.96 |
| Companies | 11 | 7 | 1.37 |
| Improvement | 12 | 6 | 1.18 |
| Clients | 7 | 5 | 0.98 |
| Can | 7 | 5 | 0.98 |
| Process | 9 | 5 | 0.98 |
| Assistance | 10 | 11 | 0.83 |
| Communication | 13 | 11 | 0.83 |

**Source: Data analysis via NVivo 10**

**Figure 2 : Word Cloud**



The frequency table shows the number of times interviews mentioned the digitization process of Yango transport. However, the term « transport » appears 20 times (2.90%), characterizing transport digitization with 1.96%, and there are 10 occurrences where it is certain that the company Yango is digitizing its transport services. The grah helps visualize the response to the question : « tell us about the process of digitizing the transport service and explain how it improves the quality of the urban transport service offering ?». Analysis of this question revealed that the most important words are : digitization of the transport service, which improves the customer experience. Therefore : transport, digitization, company, improvement, customer. The interviews, who is a Yango driver confirms this « The digitization process of the urban transport service has led to a sifnificant improvement in the quality of the service offering. Digitization has enhanced the customer experience, enabled better operational optimization, reduced costs, improved safety, and had a positive environmental impact ».

First, digitizing the urban transport servive has improved the customer experience. Customer now have access to mobile apps and online platforms to book vehicles, track their progress, and benefit from transparent and fair pricing. The mobile apps and online platforms also offer features such as the ability to pay in advance, rate the driver, and receive real_time assistance.

Second, digitization has enabled better optimization of urban transport operations. Transport companies can now access real_time information on vehicles, drivers, and routes, allowing them to better plan journeys and reduce passenger wait times. Companies are also able to track and analyze data in real_time, which contributes to improvement service quality.

Digitization also has a major impact on cost reduction. Transport companies can manage their operations more efficiently, reduce operating costs, and offer more competitive pricing. The savings achieved can then be reinvested in improving service quality.

Furthermore, the digitization of urban transport services has a significant impact on safety. Compagnies use modern technologies, such as surveillance cameras, sensors, and geolcation systems to monitor vehicles and drivers. These technologies enhance the safety of companies to react quickly in case of an incident.

Finally, the digitization of urban transport services has had o positive impact on the environmental. The use of electric vehicles and cutting_edge technologies helps reduce the carbon footprin of irban transport companies. Companies can contribute to environmental protection.
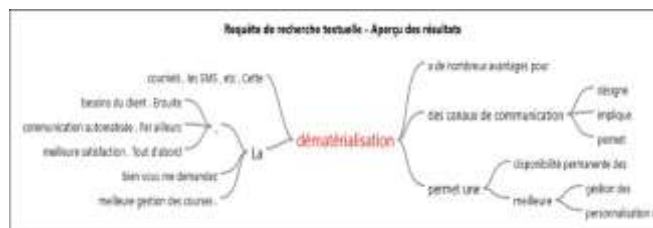
### 3.1.3.3. Dematerialization of Communication Channels

**Figure 3: Word Cloud**                                    **Figure 4: Word Cluster**



**Source: Data analysis by NVivo**

The word cloud figure above shows the number of times participants mentioned the dematerialization of communication channels as something that cloud improve service quality. This dematerialization appears 7 times with an occurrence of 1.82%. From the question asked : « Tell us about the dematerialization of communication channels and how these improve the quality of service ? » It was observed that the most important word through his question is « dematerialization » followed by « clients » and « service », while also improving « communication ». It is in this context that the Yango motorcycle driver emphasizes that : « the dematerialization of communication channels refers to the digitization of information exchanges between users and service providers. Today, thre are more and more digital communication channels available to communicate with customers, such as websites, social networks, mobile applications, online chats, emails, SMS, etc. This dematerialization has many advantages for service providers seekeing to improve service quality, as well as far customers looking for greater satisfaction.

First, dematerialization allows for better management service avaibility, 24 hours a day, 7 days a week, regardless of the customer's location or time. This increased accessibility greatly enhances service flexibility by enabling rapid and precise responses to customer needs.

Second, dematerialization allows for better management of interactions between service providers and their customers by centralizing requests and anabling more efficient processing. Digital channels also allow requests to be tracked and resolved more quickly through workflow management tools and automated communication. Furthermore, dematerialization enables better personalization of customer relationships by providing tailored and relevant information to customers throught the analysis of data collected by the company or organization. This data is then used to adapt the service offering to the individual needs of each customer, thereby increasing customer satisfaction and loyalty. In the same vein, Yango Cameroon staff tell us that : « it allows for quick and effective interaction between customers and drivers, which improves the quality of the service offering, these aspects are closely linked. Thanks to the Yango mobile app, customers can easily contact the driver in case of an emergency or change of destination. All trip routes are also electronically recorded, enabling the quick resolution of many potential disputes.

### 3.1.3.4. Quality Service by Yango

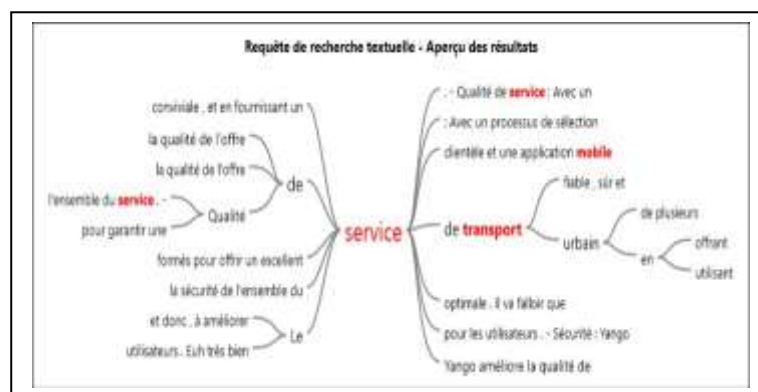**Figure 5: Word Cloud**                                    **Figure 6: Word Cluster**

**Table 4 : Word Occurrence**

| Word | Length | Count (%) | Weighted Percentage |
|------|--------|-----------|---------------------|
| Transport | 9 | 20 | 3.59 |
| Utilisateur | 12 | 8 | 2.25 |
| Communication | 13 | 15 | 1.73 |
| Quality | 7 | 6 | 1.69 |
| Easily | 10 | 12 | 1.31 |
| Improves | 8 | 4 | 1.12 |
| Drivers | 10 | 4 | 1.12 |
| Offer | 7 | 4 | 1.12 |
| Security | 8 | 4 | 1.12 |

**Source : data analysis by NVivo 10**

According to the frequency table above, participants indicated that the Yango transport service is of high quality compared to other transport services. Thus, the word « transport » appears here 20 times, representing 3.56%. Furthermore, the chart above helps us understrand the response to the question : Can you tell us how the Yango service improves the quality of the urban transport service offering ? We observed that the most important word is « transport », followed by « communication » which appears 15 times (1.73%), and then « users » which appears 8 times. In this context, Yango Cameroon staff emphasize : the Yango service improves the quality of the urban transport service offering in several ways, including improved customer experience, enhanced safety,transparent pricing, and efficient payments. Furthermore, thanks to their digital platform, Yango also optimizes operations to ensure optimal service quality. It is essential that the customer is aware of all this information. Similary, a Yango driver states: *Yango improves the quality of the urban transport service offering by providing a modern, user_friendly experience and by delivering a reliable, safe, and efficient transport service*. Here are some of the advantages that Yango brings to the urban transport sector:

- ❖ Accessibility: Through its mobile app, Yango makes transport easily accessible for users. The can quickly and easily book a taxi or ride_hailing vehicule (VTC) in just a few clicks, without needing to search for a phone number or wait by the roadside.
- ❖ Flexibility: Yango offers a choice of different transport options, including taxis and ride_hailing vehicules (VTC), to meet the needs of different users. This flexibility also helps reduce waiting times for drivers and therefore, omproves service for users.
- ❖ Safety: Yango emphasizes user safety through additional features such as the ability to track the driver's route, share this information with friends, and rate completed rides. These features contribute to enhancing the safety of the service.
- ❖ Service Quality: with a rigorous driver selection process, training focused on excellent customer service, and an intuitive, functional mobile application, Yango is committed to providing its users with a high_quality experience.

And interviewee No. 1, who is a Yango customer, states their motivation for preferring Yango: what motivates me to prefer Yango over other services is the quality of the vehicles and the overall driving experience, as well as the ease of use of the application.

### 3.1.4. Summary of the Analysis

This section presents the summary of the digitalization of transport services by the company Yango.

**Figure 6: Word Cloud**



**Source : Data analysis by NVivo 10**

The word cloud above presents a summary of the verbarims from the interviewees who constitute ours ample. The term « application » appears most frequently 30 times (4.65%), followed by « digitalization » 23 times, « communication » 20 times (3.56%), and « dematerialization » 15 times (1.73%). Therefore, it is confirmed that the Yango platform uses an intuitive mobile application to digitalize its service and improve or facilitate tasks for users by establishing communication that connects customers and drivers.

## 4. DISCUSSION

In this section, we will interpret the results obtained, comparing them with the study's objectives. We will also discuss the impact of this study on understanding the concept of digitalization in urban transport services. The findings of our study show that digitalization has enabled Yango to significantly improve the quality of its urban transport offering. Customers can now order a vehicle easily and quickly. Drivers are equipped with tablets to communaicate with customers and optimize routes.

This article sheds light on the importance of digitalization in urban transport services for improving service quality. The study also shows that compagnies like Yango can implement digitalization solutions to offer a more efficient service to their customers.

## 5. MANAGERIAL IMPLICATIONS

The typical managerial implications of digitilizing urban transport sevices and improving service quality, as seen with Yango, can include:

- ❖ Managing Digital Transformation: digitalization requires an organizational approach focused on technology. The company must implement changes to adapt and use new digital communication platforms to optimize the customer experience. Managers must ensure that applications, systems, processes, and standards are aligned and in place to support the company's digital strategy.
- ❖ Optimizing Logistics: it is crucial for urban transport companies to effectively manage their logistics to enhance their customer's experience. To achieve this, managers must monitor transport demand and assign drivers accordingly. The must also collabaorate with suppliers and partners to ensure customer satisfaction and that operations are profitable.
- ❖ Managing Customer Experience: digital urban tansport companies must offer a seamless customer experience. Managers will need to ensure that their drivers ae professional and competent to provide a quality experience for their customers. Applications, communication platforms, and customer service processes must be designed to facilitate quality interaction with customers.
- ❖ Evaluating and Optimizing Data: digital technologies enable urban transport companies to collect data from their own operations and thier customers, creating opportunities to understand trends and customer preferences. Managers must use this data to make informed decisions regarding services and operations, including pricing, customer segmentation, and additional services.
- ❖ Managing Human Ressources: managers must ensure that their staff is well_trained and motivated. Drivers must undergo training to improve their behavior on the road and carry out assigned tacks effectivily. Employee satisfaction also plays a key role in improving the quality of urban transport services and their overall success.

In summary, the managerial implications of digitizing urban transport services and improving service quality, as seen in the case of Yango, are complex and multifaceted. Companies must establish high levels of organization and coordination to optimize their efficiency, while managing their personnel, improving logistics, and being able to assess and respond to customer needs and preferences.

The results of our study have significant managerial implications. Urban transport companies must consider the importance of digitalization to improve theirservice quality. Companies must also invest in mobile applications and tablets to communicate with customers and optimize routes.

## 6. LIMITATIONS

This study has certain limitations. First, the sample is limited to 8 participants. Furthermore, the study primarily focuses on the company Yango, making it difficult to generalize the results to other urban transport companies.

## CONCLUSION

To conclude, our task was to analyze the poor qualities of the service being offered in the urban transport sector, which we identified from observations made during our journeys using conventional transport.

Furthermore, the objective of this research was to understand how the digitalization of transport services contributes to improving the quality of the offering. To achieve our results, we conducted a thematic analysis of the data. We obtained the follwing result : the digitalization of transport services improves the quality of the offering. Verifying this proposition allows us to conclude that the main proposition that the process of digitization, process automation, and the dematerialization of communication channels

improves the quality of the transport service offering is fully verified. To this end, we made suggestions likely to improve Yango's service qualities, such as :

- ❖ Improving driver quality;
- ❖ Implementing a driver rating system;
- ❖ Proposing a carpooling option;
- ❖ Creating partnerships; and
- ❖ Finally, extending its service beyond urban centers.

Despite the contributions of the research, which are valuable for researches in the sciences as well as for innovative users, it has one limitation that deserves mention. This concerns ours ample, which thus limits the generalization of the results to other services or other transport sectors. As a future direction, upcoming studies could focus on examining the link between the digitalization of transport services and the quality of the offering in peripheral areas such as rural zones and others…. And to have a more representative sample, a quantitative study is more appropriate.

Digitalization has enabled Yango to optimize its management processes, reduce operational costs, and improve the quality of its services. The platform has facilitated bookings, fee management, and communication between customers and drivers. Real_time data collection has also allowed the company to better understand its customer's travel habits, enabling them to personalize their needs. However, it is important to note that digitalization cannot be an end in itself. Transport companies must also pay attention to the quality of their service offerings. Safety, puctuality, the courtesy of drivers, and indeed of eveyone involved throughout the entire process are essnetial. To build customer loyalty, it is crucial to provide them with an overall satisfying experience, which often goes beyond technical or technological features. The case of Yango shows us that digitalization can contribute to improving the quality of urban transport services. It allows for a better understanding of customers and responding to their constantly evolving needs. However, it is important not to forget that human relatioships, safety, and the overall quality of the experience on its platform remain the key elements of customer satisfaction. Yango has done excellent work by investing in technology while silultaneously improving its customer service quality, thereby positioning the brand as a leader in the industry. The lessons learned from their success should be applied by all transport companies in their quest to provide quality services in the digital age. Finally, the digitalization of urban transport service is a major challenge for improving service quality. Yango has susuccessfully met this challenge by offering an innavative service adapted to user's needs. The results achieved demonstrate the effectiveness of this approach and pave the way for new perspectives in the sector.

Our qualitative study shows that the digitalization of urban transport services has been a catalyst for change for traditional transport services. This has led to the emergence of new players in the sector; as well as a transformation in the way services provided and used. Although this has raised new regulatory and safety questions, most users welcomed this digital transformation. This article highlights the importance of digitalization in urban transport services for improving the quality of service. The results of our study show that digitalization has enabled Yango to significantly improve its urban transport service. Urban transport companies must take this importance into account and invest in digitalization solutions to provide a more efficient service to their customers.

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