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The New Conceptual Framework for the Integration of the Informal Sector into the Budget and Gross Domestic Product of the DRC: Keys to the Competitiveness of Congolese SMEs on Regional Markets

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Abstract

Democratic Republic of Congo, with its nine borders, is a member of more than five regional economic communities. It has a very large informal sector that represents a significant share of the Congolese economy, particularly in rural and urban areas. Unfortunately, the many activities of informal Micro, Small and Medium Entreprises (MSMEs) are not taken into account in the calculation of Gross Domestic Product (GDP), which represents a significant bias. As a result, the DRC's GDP is significantly underestimated because it does not account for this significant share of economic activity. This can distort economic analyses and public policies, as decision-makers rely on incomplete data. It is therefore essential to take the informal sector into account to gain a more accurate picture of the Congolese economy and its challenges. This could also help better guide public policies to support these economic actors and promote their inclusion in the formal economic system and their competitiveness in regional markets. The objective of this article is to present a new conceptual framework called the Informal Sector Budget and GDP Integration Model, or Model for Integrating the Informal Sector into the Budget and Gross Domestic Product (MISIB-GDP). Its development is based on a literature review and the role and importance of the informal sector in developing economies, using a macroeconomic and microeconomic approach to calculate GDP and budget allocation at the provincial and national levels.

Keywords Sector, informal, budget, product, domestic, gross

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1. Introduction

Numerous authors and development actors, including the World Bank, have already demonstrated the role of the informal sector in its significant contribution to the GDP of developing countries (Souleymane Ouedraogo and Abou Kane, 2024; Houssemeddine Chebbi and al. 2023; WB, 1991, 1992, 2001, 2023).

Indeed, the informal sector is the main generator of employment and income for more than 75% of the working population in sub-Saharan African countries and Latin America (WB 2001, Rogan M. and Skinner C., 2017, John Page, 2022).

However, the review of the literature on the role of the informal sector in developing economies and its contribution to the budget and GDP raises some relevant observations regarding the contribution of the informal sector to the budget and GDP. The majority of researchers on this topic believe that the informal sectors contribute significantly to GDP (BM 2001; Rogan M. and Skinner C., 2017; John Page 2022). As for its contribution to the budget, the majority of authors express reservations by demonstrating that the development of the informal sector does not allow public services to maximize its tax revenues (Nora Lustig, 2023; BDA, 2023). All these authors unanimously ignore "informal taxation and parafiscality" which is a phenomenon present in the Democratic Republic of Congo (Kambale B., 2015). None of these authors propose a theoretical framework for integrating the informal sector into the budget and GDP (Kambale B., 2015 and EIU, 2023). Few researchers from sub-Saharan Africa are interested in this issue.

Therefore, this study attempts to fill the gaps in the absence of a theoretical model for integrating the informal sector into the budget and GDP by taking the case of the Democratic Republic of Congo.

To achieve this, the study first reviews the literature on the role of the informal sector in combating poverty through job and income creation for the majority of the working population in developing countries, as well as its contribution to their GDP.

Second, the study uses a descriptive approach, showing how the informal sector supports public service workers through informal taxation and parafiscal measures that remain unnamed.

Third, the study, through an analytical approach, shows how the exclusion of the informal sector from national accounting is a bias in the calculation of the DRC's GDP. Indeed, the informal sector, which represents a significant portion of the Congolese economy, is often underestimated in GDP calculations and ignored in budget preparation.

Fourthly, the study presents the new conceptual framework for integrating the informal sector into the DRC's GDP and budget (MISB-GDP).

This new conceptual framework for integrating the informal sector into the DRC's GDP and budget (MISB-GDP) is a set of methods and tools aimed at more accurately including informal sector activities in the calculation of gross domestic product (GDP) and in the allocation of budgetary resources at the national and provincial levels in the Democratic Republic of Congo (DRC).

The development of this theoretical model is based on both a macroeconomic and a microeconomic approach to measure and include informal activities in official economic statistics. This article is limited to the theoretical presentation of the MISB-GDP. Its empirical operation requires quantitative data collected in the field using methods such as the informal employment survey, the estimation of the value added of the informal sector, the use of consumption and expenditure data to estimate informal income, and the creation of economic performance indices taking into account the informal sector. This phase will be the subject of our next study.

2. Literature review

Numerous studies have already demonstrated the role of the informal sector and the importance of its formalization in strengthening economic growth and improving tax revenue mobilization in developing countries (Souleymane Ouedraogo and Abou Kane, 2024).

In a study on WAEMU countries, they showed that the informal sector represented 49% (Côte d'Ivoire) and 82% (Guinea-Bissau) of GDP in 2021. According to this study, heavy taxation, poor institutional quality, and limited access to banking services contribute to the expansion of informality.

Increased economic openness and better governance could reduce this informality (ILO, 2024; United Nations Development Programme, UNDP, 2024; World Bank, 2023), the International Labor Organization (ILO, 2024) study proposed formalization policies to maximize the informal sector's contribution to GDP while improving social protection for informal workers. In its study, the UNDP (2024) explored how to strengthen tax systems to capture a portion of informal sector income (World Bank, 2023) demonstrated that the informal sector accounts for approximately one-third of GDP and 70% of employment in emerging and developing economies. They also highlighted the negative impact of the informal sector on tax revenues and the ability of governments to deliver effective public services (Houssemeddine Chebbi, 2023).

In their research, these authors concluded that the informal sector played an important buffering role during the pandemic, but that it also contributed to exacerbating macroeconomic imbalances (low taxation, ineffective public stimulus).

Through their work, [Muhammad Shahbaz \(2023\)](#) demonstrated that the impact of the informal sector is asymmetrical; it promotes growth in the short term but penalizes it in the long term.

It absorbs excess labor but limits overall productivity and innovation.

[World Bank Group \(2023\)](#) examined in its study the links between the informal sector and economic growth, highlighting how formalization can increase tax revenues and strengthen economic resilience.

A study by the [Asian Development Bank \(2022\)](#) demonstrated how informality hinders economic growth by limiting the mobilization of fiscal resources needed for public investment.

The [Economist Intelligence Unit \(EIU, 2023\)](#) proposed approaches in its strategic document to gradually integrate informality into the formal economy in order to increase GDP and tax revenues. [John Page \(2022\)](#) devoted his study to the informal sector in sub-Saharan Africa and concluded that approximately 62% of employment is informal, contributing significantly to GDP but limiting tax revenues. [Nora Lustig \(2023\)](#), in their study, analyzed how informality in Latin America reduces tax revenues by 5 to 12 percent, affecting governments' ability to finance social programs.

For [Md. Mizanur Rahman \(2022\)](#), the results of their study showed that there is a bidirectional relationship whereby economic growth stimulates the informal sector and vice versa; informal employment is a source of economic resilience in countries with high instability, but contributes to the economy, albeit with low tax revenues. In the conclusion of this study, these authors recommend, among other things, the integration of the informal sector into medium-term budgetary frameworks to better estimate real GDP ([Syed Ali Raza, 2022](#)).

Through an econometric analysis of 50 countries, the authors concluded that informality reduces the effectiveness of sustainable development policies. It is linked to poverty, precarious work, and exploitation. To address this situation, these authors propose the formalization of the economy through financial and tax education, as well as the integration of the informal sector into national accounting (i.e., public budgets) and the promotion of green taxation...

In its 2021 report, the World Bank devoted a study to the crucial role of the informal sector in the African urban economy, providing data on its contribution to the GDP of several African countries. In the same report, it presented a detailed analysis of the informal sector's support to the Vietnamese economy, with its implications for public policies. [ULyssea \(2020\)](#), in his study, provided a global overview of how the informal sector contributes to the economy, with a focus on developing countries. The International Labor Organization (ILO) 2020, in its manual, proposes a methodology to assess the contribution of the informal sector to national economies, particularly in developing countries. [Danquah \(2019\)](#), in their study, analyzed the dynamics of the informal sector in sub-Saharan Africa, particularly in the urban labor market, and its impact on economic growth. [Adoho \(2018\)](#), in their study on the informal sector in India, produced results demonstrating the significant contribution of the informal sector to India's GDP, especially in urban areas. [Grimm \(2019\)](#), in their study, explored the productivity of informal firms and their impact on GDP in several emerging economies. [De Vreyer and Roubaud \(2019\)](#), demonstrated in their study how tax revenues in developing countries are influenced by the informal sector.

In his study, [Schneider \(In 2018\)](#), it is estimated that the informal sector represents between 20 and 50% of GDP in many developing countries. It contributes significantly to employment, but reduces tax revenues due to widespread tax evasion. [Medina and Schneider \(2018\)](#), showed in their study that using indirect approaches (MIMIC method), informality can reach up to 60% of GDP in some African countries, limiting the capacity to mobilize tax revenues. That indicated the informal sector plays a key role in poverty reduction but presents challenges for fiscal and social inclusion in developing countries. [Loayza \(2016\)](#) revealed in his study that while the informal sector provides employment during times of economic crisis, it limits the overall productivity of the economy and reduces the tax base. The author advocates policies to encourage formalization in order to improve tax revenues and strengthen economic growth.

[Benjamin \(2014\)](#), in their research, showed that informality in West Africa contributes 30 to 50% of GDP, but governments struggle to tax this activity due to the lack of formalization.

[Gelb A. and Mukherjee A. \(2017\)](#) demonstrated that the informal sector provides economic resilience to external shocks, but at the expense of tax revenue growth. [Elgin, C. and Oztunali, O. \(2012\)](#), through their research, demonstrated that the size of the informal economy is inversely proportional to economic growth and the effectiveness of tax policies. According to [Chen, M. \(2012\)](#), although informality helps absorb excess labor, it also perpetuates economic precarity and social insecurity. To [rogan M. and Skinner C. \(2017\)](#), informal businesses contribute substantially to urban GDP, particularly in African economies, but remain largely outside the formal tax framework.

This cross-review of the literature on the role of the informal sector in developing economies and its contribution to the budget and GDP raises the following relevant observations:

All authors are unanimous on the fact that the informal sector contributes significantly to the Gross Domestic Product (GDP). As for its contribution to the budget, the majority of authors express reservations. Demonstrating that the development of the informal sector does not allow public services to maximize its tax revenues. All these authors unanimously ignore "informal taxation and parafiscality" which is a phenomenon present in the Democratic Republic of Congo. None of these authors propose a theoretical framework for integrating the informal sector into the budget and GDP. Few African researchers are interested in this issue.

This study attempts to fill the gaps regarding the integration of the informal sector in the budget and GDP of countries where informal activities constitute the source of income and employment for the majority of the active population, as is the case in the Democratic Republic of Congo.

In short, the cross-analysis of the most recent literature review highlights the importance of the informal sector in the economies of developing countries, representing between 30% and 80% of the Gross Domestic Product. Despite this, it is rarely integrated into national budgetary policies due to insufficient data, complex tax systems, and a lack of political will.

On the social level, the informal sector absorbs unemployment, particularly among youth, women, and the low-skilled, playing a key role in times of crisis, such as the COVID-19 pandemic and armed conflicts. However, these jobs are precarious, with no social protection or access to formal credit.

Its impact on economic growth is ambivalent: it supports employment in the short term, but hinders productivity and tax mobilization in the long term. The researchers note this asymmetrical effect. The study findings recommend new approaches to formalizing this sector, through incentives such as simplified tax regimes, access to financing, social security benefits, and digital tools (mobile payments, electronic platforms). Better statistical integration of the informal sector into national accounts is also recommended for more inclusive policies.

3. The informal sector: source of income for the poor and the public administration of the DRC

Since the 1990s, in the Democratic Republic of Congo at the height of the multifaceted crisis, isolated from the rest of the world, it is the informal sector that has borne the brunt of more than 90% of poor households and the public administration (JSTOR, 1999). This informal sector has played the same role during all the political (security including wars), economic and health crises that the DRC has experienced over the last 3 decades (WB 1991, 1992, 2001, 2020). For poor households, it is the informal sector that provides employment and income for more than 90% of the active population. For the public administration, it is the informal sector that provides the bulk of public finances through exceptional and informal taxation and parafiscality (Maldonado, 2001; Samba Mukoko, 2007).

Contrary to the widespread opinion that in the Democratic Republic of Congo, the informal sector escapes administration and taxes, it is rather the opposite on the ground (WB, 2021). It is still these poor women and men, vendors in the busiest streets, shops, stores and craft workshops, kiosks, food depots, small money changers, communication card resellers, who provide Congolese state service agents with the bulk of the financial resources for their survival. These services have cleverly designed taxes, the number of which varies from one province to another or according to the type of activities carried out (Kambale B., 2015).

For example, the seller at the Virunga or Birere market in Goma, North Kivu, paid between 100 and 200 Congolese Francs daily to the Economy Department or the Municipality in 2012. This represented 2500 to 5000 Congolese francs monthly or 30,000 to 60,000 Congolese francs annually. This was the equivalent of USD 33 to 66 at the rate of 900 Congolese francs for one USD. This example is valid for all towns, cities and other non-customary centers and even in rural areas. Directed to the treasury, these fees collected by the State services would give it the necessary resources to finance the economy through credit mechanisms for this micro, small and medium-sized enterprises (UNDP, 2024).

Another example is taxes for access to land or real estate ownership (real estate title deeds). In North Kivu province, to obtain a three-year lease contract for a plot of land, you currently have to pay a minimum of USD 750 without any supporting documents. Curiously, only USD 99 goes into the public treasury. The rest is shared between the agents of the Cadastre and Conservation of Real Estate Titles divisions. It is therefore not surprising to find public administration agents in the Democratic Republic of Congo who are richer than the state itself. They build villas or even hotels while the administration offices where they work are in a disastrous state, sometimes without windows or paving and lacking the bare minimum for supplies (World Bank Group, 2023, 2024).

Regarding Democratic Republic of Congo export products, overtaxation makes them less competitive on the international market. In North Kivu, between 2000 and 2006, the export of agro-industrial products (notably coffee, tea, and cinchona) was subject to more than seventeen taxes. These taxes represented approximately 15% of the export value of these products. While in neighboring countries, these taxes did not exceed 3% of the export value (Kambale B., 2015). This partly explains the propensity for cross-border fraud for Congolese exporters. In addition to

these taxes, which are the responsibility of parafiscality, taxation then comes into play in the form of direct and indirect taxes. This tax applies to small and medium-sized enterprises, which, despite their registration, may be considered informal due to their mode of organization and operation.

4. Exclusion of the informal sector: a bias in determining the DRC's GDP

Despite the real, objectively measurable performance of the DRC's informal sector, the latter remains neglected by its political and intellectual elite, and which discredits it with external partners (World Bank and Microfinance Institution) whose experts changed their minds about this sector more than a decade ago (Maldonado, 2001; WB, 1991; 1993, 2020). However, the informal sector (demand market for microfinance supply) has already been the subject of several debates at different levels and confirmed as a very significant component in the economic weight of many developing countries like the DRC (Group of Eight Most Industrialized Countries/G8, 2002–2004; United Nations, 2005). The international community has already recognized this after several years of harsh criticism from researchers and policy makers. This recognition was reiterated by Kofi Annan, Secretary General of the United Nations, on the occasion of the International Year of Microcredit in 2005 (United Nations, 2006). This is why, through this study, we raise in passing two fundamental and relevant problems (but also challenges) for both the Government with its development partners, and Congolese researchers. Indeed, the attitudes and actions of these main actors are likely to positively or negatively modify private or public mechanisms regarding the issue of financing and political and technical support for the informal sector. While the Congolese elite continues to maintain the poor image that institutions and governments had yesterday of the informal sector, elsewhere voices have been raised for more than two decades to show the undeniable contribution of the informal sector in several developing economies (Maldonado C., 2011).

On this subject, Prahalad C.K. and Allen Hammond (2002) argue that "informal economies support the majority of the world's poor families and can contribute to economic growth by creating jobs, increasing incomes, and rehabilitating the poor, offering them a wider choice of goods and services at lower prices, thus improving their quality of life."

In our view, including the informal sector in the calculation of national GDP would allow us to assess its weight in the formation of this indicator. This would lead the government, on the one hand, to officially recognize the role of this informal sector and its importance in the country's economic growth and development. On the other hand, it would correct the error in calculating GDP, and even more so real GDP per capita. This would reflect the true economic situation based on this indicator, which is relevant for calculating certain poverty indices.

Finally, this recognition would make it possible to mobilize the necessary financial resources (including microfinance) through coherent, effective, and transparent policies and strategies based on a concerted vision shared by all stakeholders.

Let's take the example of Djibouti or Senegal, where the informal sector contributes more than 30 percent of GDP. Assuming that in the Democratic Republic of Congo, the informal sector's share would represent 35 percent, the GDP per capita would therefore be higher than that calculated without the informal sector's contribution. My personal case is a vivid example. I was an entrepreneur in the informal sector for over thirty years; due to a lack of statistics, my transition from the informal to the formal sector was never captured by national accounting. This is true for many Congolese who have had the same entrepreneurial experience. Another case is the development of the real estate sector, but informal (residential) that has developed in the cities of Bukavu, Goma, Butembo, Beni and other cities in the Democratic Republic of Congo. These numerous modern-style villas built in the informal sector are completely ignored by national accounting and therefore not included in the GDP.

Ultimately, we can conclude that the informal sector has played plays and will continue to play a leading role in the creation of employment and income for households and the administration (World Bank Group, 1990, 1991, 2001, 2020). This approach requires prerequisites such as efficient economic statistics services and accounting tools allowing the capture of financial data at the level of this sector.

Taking the informal sector into account in the national budget requires sincere concern and clearly expressed political will on the part of decision-makers. This will allow the development and implementation of support programs for the stakeholders involved by strengthening their institutional, technical, and financial capacity. This strengthening should be assessed in terms of informal microenterprises that have evolved into small formal enterprises. In terms of these, the latter could evolve into medium-sized enterprises and later become large companies through various transformation mechanisms: association, merger, transformation, etc. Among the support programs for the informal sector, the microfinance sector should occupy a prominent place.

As Isabelle Guérin (2003) points out, "microfinance fulfills a mission of general interest. On the one hand, it plays a preventive role in the face of excessively risky projects; on the other hand, it promotes the creation of sustainable jobs of acceptable quality for people in situations of severe marginalization, and at a reasonable cost, whether directly (self-employment) or indirectly (return to salaried employment). This mission of general interest is based on

an innovative method of developing services. Since it is a co-production that is both bilateral (borrowers and lending organizations) and territorial (bringing together different actors involved in supporting entrepreneurship).¹

The success of such an ambitious process for a government determined to develop and transform the informal sector into the formal sector will require adaptation to local realities.

To help initiate and accelerate this process, in the following section, we propose a theoretical framework capable of integrating the informal sector into the DRC's budget and GDP, which we call the "Model for the Integration of the Informal Sector into the National Budget and GDP, MISIB-PIB."

5. The new conceptual framework for integrating the informal sector into the GDP and budget of the DRC(MISIB-GDP)

5.1. Methodology: theoretical approach for the construction of the MISIB GDP

The construction of the MISIB GDP (Gross Domestic Product) model is based on two main approaches for calculating GDP within an economy. These are the macroeconomic approach (often used for the official calculation of GDP) and the microeconomic approach (more analytical, focused on the behavior of economic agents).

1. Macroeconomic Approach

It is based on three main methods, including the calculation of GDP by production, by income, and by demand:

a) Production (or Value Added) Approach

$$GDP = \sum (\text{Value of Production} - \text{Intermediate Consumption})$$

This involves adding together the value added of all businesses in a given territory

b) Income Approach

$$GDP = \text{Wages} + \text{Gross Operating Surplus} + \text{Taxes on Production} - \text{Subsidies}$$

We add up all income received by the factors of production, including labor and capital.

c) Demand (or Expenditure) Approach

$$GDP = C + I + G + (X - M)$$

- C: Household Consumption
- I: Business Investment
- G: Government Expenditure
- X: Exports
- M: Imports

d) Data collection tools for calculating GDP using the macroeconomic approach

The aggregates used in this approach are calculated based on data processed by statistical institutions such as the Central Bank, national statistical institutes, the International Monetary Fund (IMF), and the World Bank, using the following tools:

- National accounts
- Input-output matrices
- Macroeconomic surveys and official statistics
- Summary indicators (Gregory Mankiw, 2021)

2. Microeconomic approach

This approach does not allow for the direct calculation of GDP, but it does allow for the analysis of how individual decisions of economic agents contribute to its formation.

Example of microeconomic reasoning:

A company manufactures a product (p) and sells it at a price x after paying wages (S) to workers and purchasing raw materials at the purchase price (mp), and realizes (b) as profit.

¹ Excerpt from Guérin's article entitled "Microfinance in Europe and North America: between financing and instrumentalization", in Proceedings of the 8th Scientific Days on Entrepreneurship and Innovation and Scientific Days of the AUF Entrepreneurship Network congress from March 21 to 23, 2003.

Value added is therefore calculated as follows: $V_a = p - mp$

This value added thus contributes to GDP using the production approach.

Wages (S) and profit (b) contribute to GDP using the income approach.

Purchased and consumed output (p) contributes to GDP using the demand approach.

Thus, microeconomics sheds light on the behaviors that, when aggregated, form GDP.

a) Data collection tools using the microeconomic approach (indirect GDP analysis)

This approach is based on the observation of individual economic behaviors and their contribution to overall wealth. It uses the following tools:

- Microsimulation models
- Business accounting
- Household and business surveys
- Consumer-producer theory

To apply these approaches and their tools to the MISIB GDP, the dependent and independent variables were defined in the form of acronyms, the explanations of which are presented at the level of determining GDP and the informal sector budget, as well as their integration into GDP and the formal sector budget (Gregory Mankiw N., 2020; Gregory Mankiw and Ricardo Reis, 2002).

5.2. Income and taxes of the informal sector in the Democratic Republic of Congo

We have already shown in the previous point that the informal sector, contrary to popular belief, is the one that provides a living, in a certain way, to a large number of Congolese state service agents. From the lowest level-neighborhoods, municipalities, town halls, etc.-to the highest level of government (ministries, courts, and tribunals, etc.), the informal sector is the preferred financial source that supplements the modest salaries of state officials. This is what we refer to in this model as "informal taxation and parafiscality."

The real problem is that all revenue collected from micro and small entrepreneurs is never channeled into the public treasury. No one is scandalized when a senior official at the high court of the judiciary simply pockets the fees charged to a farmer who has sought legal intervention for a field from which he has been expropriated.

The solution would simply consist of clearly identifying informal businesses, the number and amount of taxes to which they are subject at different levels of government services. Then, all these different taxes must be transformed into a single tax. Finally, mechanisms for collecting this single tax must be developed at the Public Treasury level.

This is where Microfinance Institutions (MFI) will need to play a role in per urban, semi-urban, and rural areas, where the Central Bank of Congo and commercial banks are absent.

One of the key elements of the collection mechanism is the collection of this tax by a bank (MFI). A law for the collection of state revenue from the informal sector must be proposed to Parliament for adoption and promulgation by the President of the Republic. The implementation of this law could make it possible to capture the monetary flows (incoming and outgoing) generated by the informal sector.

A study may be conducted at a later date to determine the distribution of the single tax on the informal sector, in proportion to the benefit of different beneficiary services (Neighborhood, Division of Small and Medium-sized Craft Enterprises, Municipality, Town Hall and General Directorate of Taxes (GDT). The GDT proportion may constitute the Value Added Tax (VAT) for informal businesses.

5.3. Determination of the overall income of the informal sector using the MISIB-GDP theoretical model

The MISIB-GDP theoretical model is part of both a macroeconomic and microeconomic approach (Mankiw, 2000).

5.3.1. Construction of the MISIB-PIB model

The new conceptual framework for integrating the informal sector into the GDP and budget of the DRC (MISIB-GDP) is based on the following 4 hypotheses and 5 accounting identities:

A. The 4 basic hypotheses

First hypothesis (H1): The flows of non-market goods and services produced by social organizations are difficult to capture through national accounting, and due to the lack of appropriate statistical tools, their monetary value cannot be assessed.

Second hypothesis (H2): This is a closed economy in which all agents are informal actors whose production function is carried out by four components: microenterprises (services and commerce), small businesses (services and commerce), artisanal businesses (services and commerce), and agricultural microenterprises (small industry).

Third hypothesis (H3): All informal sector production is consumed within the national territory by three agents: households; informal businesses in their fields of activity; and the government that regulates the economy, using resources generated by taxes; and nothing is imported from abroad.

Fourth hypothesis (H4): The investment function is zero; to invest, microentrepreneurs resort to exogenous sources of financing.

B. Determining the added value of the informal sector

Based on the second and third assumptions, income Y_{si} is equal to overall consumption C_{si} , we can write:

$$Y_{si} = C_{si} \quad \text{and} \quad C_{si} = C_{mei} + C_{pei} + C_{ari} + C_{agi} \quad (2)$$

With Y_{si} = Income of the informal sector; C_{si} = consumption of the informal sector; C_{me} = consumption of informal micro-enterprises; C_{pei} = consumption of informal small-enterprises; C_{ari} = Artisanal consumption; C_{agi} = Informal agricultural intermediate consumption.

According to this accounting identity, the overall income Y_{si} of the informal sector is equal to the overall consumption C_{si} of the informal sector. The latter is made up of the consumption of three economic agents presented above: informal households, informal businesses and the administration (Mankiv G., 2000).

Now, we know that overall consumption (C_{si}) is made up of two components: the first consisting of consumption used in the production of new products and services, a component we designate as CI_{si} ; and the final consumption of households and government services, which is not used in the production of these new products and services, designated respectively as C_{mi} , and government services (C_{ai}).

This allows us to verify the accounting identity, which must, at all times, be balanced with regard to our third hypothesis. This consumption is divided into overall consumption of the informal sector (C_{si}) and overall value added of the informal sector (V_{si}).

Recall that this value added (V_{si}) is generated by the four categories of informal businesses (microenterprises, small businesses, artisanal structures, and agricultural organizations). We can write:

$$Y_{si} = CI_{si} + VA_{si} \quad (3)$$

with

$$CI_{si} = CI_{me} + CI_{pe} + CI_{ar} + CI_{ag}$$

and $VA_{si} = VA_{me} + VA_{pe} + VA_{ar} + VA_{ag}$

With CI = Intermediate Consumption

From (1) and (2) we can deduce that:

$$Y_{si} = C_{si} = VA_{si} + CI_{si} = VA_{me} + VA_{pe} + VA_{ar} + VA_{ag} + CI_{ar} + CI_{me} + CI_{pe} + CI_{ag} \quad (4)$$

Or we can derive the value added from (4) by writing:

$$VA_{si} = [Y_{me} + Y_{pe} + Y_{ar} + Y_{ag}] \cdot [CI_{me} + CI_{ar} + CI_{pe} + CI_{ag}] \quad (5)$$

Y_{me} = Income from Informal Micro Enterprises; Y_{pe} = Income from Small Informal Enterprises; Y_{ar} = Income from Artisanal Enterprises; Y_{ag} = Income from Agricultural Enterprises.

This accounting identity makes it possible to determine the national income (V_{si}) of a closed economy consisting solely of informal agents. As this is a closed economy, the total value added (V_{si}) constitutes both GDP and GNP.

At this level, it is possible to integrate this GDP generated by the informal sector with that of the formal sector through national accounting. The latter is considered underestimated and therefore incorrect because it does not take into account the GDP generated by the informal sector. However, it is this biased GDP that has always been published.

In countries where the informal sector dominates the economy, such as the DRC, GDP, in the true sense, is the aggregate of the GDP of the formal and informal sectors.

$$PIB = PIB_{SF} + PIB_{SI(6)}$$

With PIB: Gross Domestic Product (GDT) in the Informal Sector

C. Production of data necessary for the operation of the MISIB-GDP model

However, for this model to truly work and allow for the integration of the informal sector into national and provincial budgets, the necessary data must be entered. This data is provided by the model's microeconomic approach (Maldonado C., 2011).

As with the formal economy, the data required for the model to function are produced by the general accounting records kept by each informal enterprise (source: Our own design, see table below).

Figure No. 1: Allocation of income from informal businesses to economic agents

INCOME FROM EACH INFORMAL BUSINESS	ALLOCATION OF INCOME	ALLOCATION OF ADDED VALUE	BENEFICIARY AGENTS
Y_{ei} PRODUCTION OF THE INFORMAL ENTERPRISE	CI_{Si} Intermediate consumption of each informal enterprise	Payment of supplier invoices	Local businesses
	VA_{ei} Added value of each informal company	Remuneration and other benefits	Workinghouseholds (staff)
		Taxes and duties	State Services
		Interest paid	Companies (local MFIs)
		Depreciation and provisions	Informal business
		Reserves	Informal business
		Dividends	Entrepreneurial households

Source: Ourselves from our own design

This figure visualizes the distribution of the production of each informal enterprise, the intermediate consumption and the added value allocated to the different economic agents. Thus, the overall added value of the informal sector is the sum of the added values of all the informal enterprises belonging to the four categories.

As shown in the figure above, the income Y_{ei} generated by the company ei is allocated to two components: intermediate consumption CI_{ei} and added value VA_{ei} . This is consumed between the three categories of economic agents: households (owner and workers), businesses (micro-enterprises, MFIs that grant them micro-credits), and state services including the district, the municipality, the town hall, the Division of Small and Medium Enterprises and Informal Crafts (State Services)

5.3.2. Integration of the informal sector into the budget at national and provincial level

The integration of the informal sector into the budget at the national and provincial levels, as far as revenue is concerned, is based on the regulation of taxes previously paid to state services. However, these taxes are never directed to the Public Treasury. To definitively put an end to this culture of misappropriation of revenues paid to state services, we make a few proposals here:

- First, given the large number of government departments that are extorting money from this sector, it will be necessary to identify those that truly deserve to benefit from it;

- Second, it will be necessary to create a single tax incorporating and replacing all the taxes on the various government departments selected;
- Third, define the share of each department and the mechanisms for its retrocession;
- Fourth, define effective mechanisms for collecting this tax on behalf of the Treasury.

a) TAI, TA and TVAI taxes: new concepts for integrating the informal sector into the national budget

The tax on informal activities (TAI) is the single tax to which all informal economic operators are subject. The administrative tax consists of the portion that goes to the province and its various departments. The revenue collected through this tax is paid in part to the central government and to decentralized entities (provinces and their subsets).

We refer to the TAA as the portion of the administrative tax (TAI) that goes to decentralized entities, and the TVAI as the portion of the TAI that goes to the central government.

Thus, the TAA, which is the informal sector's contribution to the provincial budget, will be calculated; while the TVAI, to be collected by the General Directorate of Taxation, is its contribution to the national budget. The rate of the TVAI, which must not exceed 50% of the VAT, may be determined by mutual agreement between the stakeholders.

We can therefore write, at the level of a single informal enterprise (EI):

$$TAI_e = TAA_{ei} + TVAI_{ei} \quad (7)$$

The expression of the income of the formal enterprise becomes:

$$Y_{ei} = CI_{ei} + VA_{ei} = CI_{ei} + S_{ei} + TAA_i + MP_{ei} + RV_{ei} + D_{ei} \quad (7)$$

$$Y_{ei} = CI_{ei} + VA_{ei} = R_{ei} + AIMP_{eiffdc} + RV_{ei} + D_{ei} \quad (8)$$

At the global (national) level, the income generated by the informal sector of all four categories of enterprises combined and its overall consumption by economic agents can be determined as follows:

$$\sum Y_{ei} = \sum CI_{ei} + \sum S_{ei} + \sum TAA_{ei} + \sum TVAI_{ei} + \sum I_{ei} + \sum AIMPe + \sum RV_{ei} + \sum D_{ei} \quad (9)$$

By allocating the overall income to the agents who consume it, we can write from (9):

$$Y_{sei} = Rm_{ei} + Ran + Rap + Re_i \quad (10)$$

In this formula: Y_{sei} represents the total income. Rm_{ei} is the income to entrepreneurial households consisting of salaries (S_{ei}) and dividends (D_{ei}). The income to the national administration (Ran) consists of taxes on informal value added.

The income of the provincial administration and its decentralized entities (Rap) consists of administrative taxes. The income of informal businesses (Re) consists of interest paid; reserves and allocations to depreciation and provisions (RV_{ei}).

5.3.3. Practical difficulty in operating the MISIB-GDP model and proposed solution

Informal sector businesses do not maintain general accounting records that would allow them to produce accounting data that could be captured by the national accounting system. To address this problem, an informal sector development policy and strategy must be implemented. Here, we propose some tools for implementing this policy and strategy.

Strengthen the technical and institutional capacity of informal businesses, with a view to improving the processes and methods of producing goods and services, as well as their performance. This involves the creation of support and management organizations for this informal sector (Guérin, 2003; S. Allemand, 2007).

This includes, among other things, the establishment of support and management structures for the informal sector. Specialized accounting firms, which will be private service providers, must also be added to the list of these organizations. This provides an opportunity to give young graduates of business, accounting, and finance schools the opportunity to create jobs for themselves. The fees of these service providers will have to be paid by the informal sector support fund, another organization to be added to the list.

This fund will be financed by contributions from members who are informal businesses. Another part of the fund would be financed by the Government and its partners as well as other local, national and international donors.

Existing public bodies will need to be revitalized, particularly by privatizing management. Actions to develop the sector will include:

- Providing ongoing training for entrepreneurs;
- Disseminating quality and quantity standards for goods and services to align them with international standards;
- Facilitating access to appropriate technologies and local, national, and international supply and distribution markets;
- Promoting and facilitating exchange visits at the local, national, and international levels (China, Korea, India, Brazil).

Institutionally, there is a need to create a separate ministry responsible for the MSMEA and microfinance sector. At the provincial level, there is an urgent need to strengthen the SMEA divisions and decentralized entities, providing ongoing technical and financial support to private donors (NGOs and other appropriate organizations). One of the key roles of these support organizations is the development of rural and urban areas to promote an informal sector that does not threaten the living conditions of stakeholders or the environment.

This integration of the informal sector into the budget and GDP is a prerequisite for the promotion of efficient microfinance institutions and a sustainable and emerging microfinance sector in the Democratic Republic of Congo.

6. Conclusion

This study proposes a new conceptual framework for integrating the informal sector into the DRC's GDP and budget (MISIB-GDP). This new framework is a set of methods and tools aimed at more accurately including informal sector activities in the calculation of gross domestic product (GDP) and the allocation of budgetary resources in the Democratic Republic of Congo (DRC).

This study was motivated by the fact that the informal sector, which represents a significant share of the Congolese economy, has never been included in the GDP of the informal sector. The new conceptual framework proposed in this study therefore aims to address this shortcoming by using a macroeconomic and microeconomic approach to measure and include informal activities in official economic statistics.

In its development, this article methodically presents the theoretical framework of the MISIB-GDP.

The MISIB-GDP's comprehensive approach will rely on quantitative data collected in the field using appropriate methods. These include surveys of informal employment, estimation of the informal sector's value added, the use of consumption and expenditure data to estimate informal income, and the creation of economic performance indices that take the informal sector into account.

By more accurately integrating the informal sector into the calculation of GDP and the allocation of budgetary resources, the new MISIB-GDP conceptual framework aims to better reflect the true size and contribution of the informal sector to the Congolese economy. This could enable better planning and more equitable allocation of resources, as well as more effective economic policies to stimulate the growth and competitiveness of SMEs in regional markets. This would contribute to accelerating poverty reduction and economic growth that reaches the most vulnerable and marginalized populations.

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