

Impact Assessment of the Introduction of a ‘Single Window’ Model for Business Registration (GUCE) in Lubumbashi

Final Report

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Executive Summary

Funded by the UK Department for International Development (DFID), the Essor program supports the Congolese government in improving investment and the business climate in the country. In particular, Essor aims to promote the creation and growth of micro, small and medium-sized enterprises (MSMEs). One of the objectives of the Essor program is to improve and facilitate the process of business registration through the creation of Guichet Unique de Création d'Entreprise (GUCE) antennae – a 'single window' model for business registration.

After implementing the GUCE single window in the city of Lubumbashi, Essor contracted Forcier to conduct an impact assessment with a focus on the intervention's contribution to simplifying the registration process and reducing related costs for businesses willing to start or formalize their business. The aim of this study is to provide accurate estimates for the quantitative changes to the time and costs brought about by the roll-out of the GUCE single-window in Lubumbashi. To do so, the study compares the time and cost necessary to register a business before and after the introduction of the GUCE single window in Lubumbashi in early 2018.

While the methodology was built to obtain the most accurate results possible, the ground reality together with the reality of the program made it challenging in some respects. The scope of this study does not allow for in-depth analysis with regards to gender and social inclusion, however further research on the GUCE will examine these questions and will be shaped by the initial findings of this study.

Nevertheless, important results show a significant positive impact of the GUCE on the business environment:

- Significant improvements in the quality and completion of registration were observed since the creation of the GUCE. Businesses register with an average of 0.3 more processes completed (out of 6 measured in total for personne morale and 5 for personne physique businesses).

- Significant findings on reduced cost of registering a business with the new single window system. Data collected show that the cost borne by companies to register decreased with the creation of the GUCE by an estimated \$123.50.

- Significant findings on reduced time spent and taken for registering a business when going through the new registration procedure in the GUCE. The time taken to register has decreased by 19 days since the new single window system has been implemented. In addition, business owners spent less time personally to visit the governmental institutions making it easier to go through the whole procedure: 5 hours and 36 minutes less.

- Significant improvements to trust in the Congolese state and reduction in corruption practices can be seen throughout this study. Since the implementation of the GUCE, there are 31% more of entrepreneurs who believe their registration was carried out in a just and ethical manner by Government.

- Reduction of informal costs during the registration process. Results show a 32% reduction in the propensity to need to pay a side payment for processes required for business registration according to business owners.

- Findings also suggest that 84% of entrepreneurs registering in 2018 agreed or strongly agreed that the GUCE had made them more likely to register their business. A finding mirrored in the perceptions of intermediaries.

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1. Introduction

The *Essor* program is a flexible funding intervention implemented by PricewaterhouseCoopers over a five-year period (2015-2020) in the Democratic Republic of Congo. Funded by the UK Department for International Development (DFID), the program supports the Congolese government in improving investment and the business climate in the country. In particular, *Essor* aims to promote the creation and growth of micro, small and medium-sized enterprises (MSMEs) and better implementation of the provisions contained in OHADA (Organization for Harmonization in Africa of Business Law) Uniform Acts.

One of the objectives of the *Essor* program is to improve and facilitate the process of business registration through the creation of Guichet Unique de Création d'Entreprise (GUCE) antennae – a ‘single window’ model for business registration. This intervention amounts to the support for the design and roll-out of the ‘single window’ model, extending from the first single window (GUCE antenna) in Gombe, Kinshasa, in 2014. *Essor*’s support to the GUCE has included the development of the specific software for each GUCE underpinned by a centralized commercial register – Registre du Commerce et du Crédit Mobilier (RCCM) – to which each GUCE antennae connects. In addition, *Essor* has provided equipment and training for new GUCE antennae in Matete, Kinshasa, in 2017, as well as in Lubumbashi and Kisangani in 2018, with plans for branches in Goma and Bukavu in 2019.

After implementing the GUCE single window in Lubumbashi, *Essor* contracted Forcier to conduct an impact assessment with a focus on the intervention’s contribution to simplifying the registration process and reducing related costs for businesses willing to start or formalize their business. The aim of this study is to provide accurate estimates for the quantitative changes to the time and costs brought about by the roll-out of the GUCE single-window in Lubumbashi. To do so, the study compares the time and cost necessary to register a business before and after the introduction of the GUCE single window in Lubumbashi in early 2018.

2. Context

Program description and evidence review

Business registration is vital for spurring economic growth, investment, and development in the DRC. By encouraging more businesses to operate legally, as opposed to informally, businesses acquire a certain set of rights, such as equal and fair treatment through the justice system, and opportunities, such as investment and access to capital. Registration also ensures that businesses pay taxes and follow certain labor standards, such as providing appropriate work conditions and respecting employees’ rights.

Under the “old” process, business registration was time-consuming and costly to the point of potentially discouraging businesses from initiating the process at all. The steps required for business registration are listed below, which under the old process had to be done in-person at each individual ministry/agency:

Step	Procedure	Ministry/Agency
1	Provide the documents required to receive an official RCCM number.	Civil or Commercial Court
2	Make the payment to acquire the RCCM number	Direction Générale des recettes administratives, judiciaires, domaniales, et de participations (DGRAD)
3	Pay for and receive a taxpayer identification number (<i>Numéro d’impôt</i>)	Direction Générale des Impôts (DGI)
4	Pay for and receive the <i>identification nationale (IDNAT)</i> , which determines a business’ tax burden	Ministry of the Economy

5	Register and pay to acquire a social security number (<i>numéro INSS</i>)	Institut National de la Sécurité Sociale (INSS)
6	Receive information, and potentially a <i>numéro INPP</i> , regarding eligibility to receive assistance in training future employees	Institut National de Préparation Professionnelle and Office National de l’Emploi (ONEM)
7	Receive identification for future labor inspections	Labor Inspection Office
8	Publish business statutes in the official legal journal and make the related payment (<i>if registering as a personne morale</i>)	Office du Journal Officiel
9	Notarize business statute papers and make the related payment (<i>if registering as a personne morale</i>)	Notary

The purpose of the GUCE single window, therefore, is to simplify the process of business registration in the DRC, to save businesses time and money in doing so, and to spur others to register when they otherwise may not have. Indeed, by having “one window” in which the entire process can be conducted, and at which one payment can be made, Essor has sought to support the Congolese government in spurring business creation and increasing investment in the DRC.

The GUCE is not to be confused with a “one-door” entity – in which representatives from each of the above institutions are present and which the business representative visits one after the other – but rather truly is a “one-window” agency. This means that, theoretically, the entire process is conducted with the GUCE antenna as the point of contact, who then links to the various agencies listed above to complete each process. Any necessary communication with these various agencies should be conducted by GUCE staff, as opposed to the business that is registering (as was customary under the “old” system). Therefore, not only should the process itself be faster because GUCE staff can act as de-facto representatives of various agencies, but the business’ involvement in the process should in theory be reduced. This, in turn, could make the process cost less both in terms of fees charged and the business’ opportunity cost, in that they would save time. Costs may also be reduced if businesses no longer have the need to hire lawyers or intermediaries to take charge of the process on their behalf, or, if they still do, their fees may be reduced given that it should take less time and effort to accomplish the registration process under the GUCE system. The more limited number of steps required to register the business, furthermore, should theoretically also reduce the need, or frequency, of making “side-payments” when the process stalls.

Such were the intentions and purpose of the implementation of GUCE in Lubumbashi. In practice, any business that would like to register via the GUCE just has to follow the below steps:

1. Drop off a series of documents at the GUCE

- 1.a. For a “*personne morale*”¹ this includes four copies of the business’ statutes, a “*déclaration de souscription*”, proof of social capital or a bank statement, photocopies of the business owner’s ID, a photocopy of the business’ owner’s signature, and an official letter requesting registration

¹ Term for larger businesses / corporations / limited companies. Note, *personne morale* is a broad term. A more detailed description of the legal form is available although was not used for the purposes of this survey – this includes for example the most common legal form which is a *Société à responsabilité limitée pluripersonnelle (SARL)*, and the second most common, a *Société à responsabilité limitée unipersonnelle (SARL U)*; it also includes less common types such as *Société par actions simplifiée pluripersonnelle (SAS)* and *Société par actions simplifiée unipersonnelle (SASU)*

- 1.b. For a “*personne physique*”,² this includes photocopies of the business owner’s ID, proof of residence, a copy of a “*casier judiciaire*” (document highlighting any past criminal activity), a copy of a lease or property title, and an official letter requesting registration
2. Once GUCE staff validate these documents, a representative of the DGRAD will provide an invoice that the business must pay at the bank
 - 2.a. For a *personne morale* business the fee is \$80, as well as 12,000 CDF for administrative fees
 - 2.b. For a *personne physique* business the fee is \$30, as well as 12,000 CDF for administrative fees
3. The business then brings the receipt back to the GUCE and waits a maximum of three days to receive its registration documents (although receiving a tax number often takes longer).

While the GUCE single window is a great way to simplify a previously onerous process of business registration on paper, its implementation can be quite arduous because it demands significant reform, as well as cooperation among a long list of ministries involved in the process in one way or the other. For example, in order to establish the GUCE, it is necessary that its staff have the necessary cooperation from these ministries to conduct each process – to receive documents and payments, and to issue identification numbers – which are not always easy to obtain. In addition, computerization of the registration process – through the commercial register – the “*Registre de commerce et du crédit mobilier*” (RCCM) – delivered via networked software that Essor developed and which the GUCE links to, as well as through the use of digitized archives and the use of computers more generally – is difficult to adapt to, requiring substantial training, IT skills, equipment, and coordination between agencies and banks. While Essor has focused substantial resources on this process, weak institutions and infrastructure in DRC can make these types of changes difficult to implement.

The objective of this study was to find the degree of savings in costs and time for businesses registering through the GUCE. Savings in costs were measured by formal fees, fees for intermediaries, and side payments, while savings in time were measured by the time it took for a business to be registered, including the time it took for the business to receive its tax number, as well as the time spent by the business and/or its intermediary at the GUCE and other institutions related to the registration process.

Evaluation Questions

The quantitative tools allowed Forcier to compare figures for businesses that registered in 2017 and 2018 (pre- and post-GUCE antenna); for “*personnes physiques*” (small businesses/self-employed) and “*personnes morales*” (limited businesses/larger businesses); for businesses using intermediaries – ‘*avocats*’ (lawyers) and ‘*mandataires*’ (unofficial intermediaries, helping with the process of business registration for a fee) – and those not using them, when registering; and for businesses of different types and sizes.

The following evaluation questions were designed by Essor and informed the construction of the various questionnaires used during this evaluation.

1. What has been the impact on costs faced by businesses when registering?
2. What has been the impact on time taken by businesses when registering?
3. Has there been any change in whether businesses utilize intermediaries for business registration?
4. What has been the impact on fees charged by intermediaries when supporting a business to register?
5. What has been the impact on time taken for intermediaries when supporting a business to register?
6. To what extent can changes in time and cost be attributed to:
 - Digitization of previously manual procedures?

² Individuals who are self-employed / smaller businesses / SMEs. Unlike for *personne morale* where there are several legal forms (see footnote above), there is only one legal form for *personne physique* businesses which is *personne physique commerçante*.

- Reduction of number of procedures?
- Change in costs of procedures?
- Reductions in informal costs / side-payments?

In addition to the above questions, additional research questions were added to inform the study and design appropriate surveys:

7. How easy or difficult is the registration process through the “old” system and through the “new” system? Which steps are more arduous, and which are easier?
8. How do businesses perceive the GUCE? Do they trust the process to be accurate and fair?
9. If the impact of the GUCE on costs and time saved is limited, what are the reasons? How can these obstacles be overcome?
10. If the impact of the GUCE on costs and time saved is significant, what have businesses been able to do with the additional time and money?
11. What is the GUCE’s impact on informal costs/side-payments? Has the GUCE had an impact on corruption? If so, why?
12. Do women-owned and male-owned businesses experience different savings in time and cost?
13. Has the establishment of the GUCE led to more business creation and registration that otherwise would not have happened?
14. To what extent were businesses operating without being registered before the creation of the GUCE? Has the establishment of the GUCE led to the formalization of previously existing, but unregistered, businesses? If so, for what reasons?
15. Has the degree of impact of the GUCE been the same for “*personnes morales*” and “*personnes physiques*”?
16. Has the degree of impact of the GUCE been the same for lawyers and “*mandataires*”?
17. Has the GUCE impacted the relationship between businesses and intermediaries? Has it changed the market for intermediaries? Do businesses need their assistance to the same degree as before the creation of the GUCE?
18. How knowledgeable and helpful are GUCE staff? Do they have the resources and equipment needed to do their work?
19. How would you evaluate the digitization of previously manual procedures? Has this process been completed successfully or have there been obstacles? What has been the impact of the digitization of information and procedures?
20. What recommendations can be made for improving the business registration process via GUCE?

3. Methodology

In order to best meet the objectives of this evaluation, the methodology agreed to with Essor made use of both quantitative and qualitative research.

Sampling frame

Essor provided an initial sampling frame based on the RCCM database of business registrations for Lubumbashi in 2017 and 2018. Information available from the initial sampling frame (taken from the RCCM) included³:

- The name of the business
- A named manager (*dirigeant*)
- Address of business
- The year of registration (2017 or 2018)
- The RCCM number of registration
- Type of business – *personne morale* or *personne physique*
- Sector of business
- Contact details (email and telephone) for a select number of businesses and managers
- Multiple managers’ names and contact details for a select number of businesses
- A named intermediary (*requerant*) for a select number of businesses
- Contact details of intermediary (*requerant*) for a select number of intermediaries named

At the outset, it was decided that only the manager listed in the RCCM registration should be used for the survey. This was to ensure the best chance of them having knowledge of the registration process, and to minimize risk of having business employees respond to the survey *in lieu* of the manager, with insufficient knowledge of the time, cost and process of starting the business. This may have limited the sample size of the survey, but should have increased the overall accuracy of the data collected.

Completing an interview with all individuals was not possible in practice, due to the unavailability and refusal of some respondents, and limited contact information for others. Below, the initial sampling frame and available contact information is broken down by type of interview.

Business Sample

Essor provided Forcier with a list of 1026 businesses that registered in 2017 and 991 businesses that registered in 2018 (including the information as above) – this was based on the total list of businesses registered with some adjustments for duplicates found in the sample. For each business, at least one manager is named – a *dirigeant* – this individual provided the primary contact point for the evaluation (21% of whom were female). Contact information on the business/manager included the business address for all businesses, and for some at least one email and/or telephone number was available. For the 2017 business sample, however, only 51 businesses had either an email address or phone number available. For the 2018 business sample, all businesses had both an email address and phone number listed. This information is summarized in the below tables:

Number of businesses registered	“Personnes physiques”	“Personnes morales”	Total
2017 registrations	513 (23% female)	513 (19% female)	1,026 (21% female)
2018 registrations	442 (25% female)	549 (17% female)	991 (21% female)
TOTAL	955 (24% female)	1,062 (18% female)	2,017 (21% female)

³ Authorisation was secured from the GUCE, and a confidentiality agreement was signed.

Contact info available (excluding address)	2017 registrations			2018 registrations		
	“Personnes physiques”	“Personnes morales”	Total	“Personnes physiques”	“Personnes morales”	Total
Email available	11	35	46	442	549	991
No email available	502	484	986	0	0	0
Telephone number available	14	36	50	442	549	991
No telephone number available	499	483	982	0	0	0

Intermediary Sample

The initial intermediary sample was made up of a variable listed in the RCCM database as the “*requérant*”, or person who registered the business – a variable only available for businesses registered in 2018. For 536 of those found, the “*requérant*” was in fact the owner of the business, which was most typical for businesses that fall in the category of *personne physique*. That is to say that these businesses did not have a named intermediary on record and there was no intermediary to interview. As a result, there were only about 450 businesses for which there was a potential intermediary to interview for the 2018 sample. Further complicating matters, across these 450 businesses, many used the services of the same intermediaries, so that there were in fact only 284 individuals available for the 2018 intermediary sample, and only 56 of which had contact details listed, again most of whom had registered *personne morale* businesses. A phone number was available for only some of the 2018 intermediaries, therefore, and there was no source of information for 2017 intermediaries. This information is summarized in the below tables:

Type of 2018 Requéran	Personnes physiques	Personnes morales	Total
Requéran is in fact the owner of the business	407	129	536
Requéran is not the owner of the business, and is potentially an intermediary	29	436	450

Number of businesses 2018 intermediaries have registered	Number of 2018 Intermediaries	With contact details
1 business	195	38
2 businesses	47	9
3 businesses	23	4
4 businesses	6	1
5 businesses	5	0
6 businesses	3	1
7 businesses	3	2
8 businesses	1	0
9 businesses	0	0
10 businesses	0	0
11 businesses	1	1
Total	284	56

Additional sampling of intermediaries based on phasing of two surveys

Forcier was able to gather intermediary contact information during interviews with businesses to add to the intermediary sample. Information was collected on a named intermediary during the enterprise survey conducted with managers, and used to add to a sample of intermediaries to be contacted at a later phase of the evaluation.

Research Tools

Quantitative research was composed of one questionnaire for managers of businesses (*'dirigeants'*), and one questionnaire for intermediaries who may have been hired to register the business. Forcier targeted businesses and intermediaries who took part in this registration process in 2017 (before the creation of the GUCE) and in 2018 (after the GUCE was operational and the process for registering a business had changed). In addition, the sample of businesses included "*personnes physiques*" and "*personnes morales*"; while the sample of intermediaries was composed of lawyers and informal fixers referred to as "*mandataires*".

An important difference between the two quantitative surveys is that while for the managers of the businesses, the survey asks questions relating to the registration of a specific business (ie. theirs); for intermediaries Forcier asked questions regarding the "average experience" of registering a business in either 2017 or 2018 or both, depending on their experience. Intermediaries therefore answered questions by estimating the average costs and time spent registering all those businesses.

Tool design is key in providing the right answers to a study. As planned, this was conducted in close collaboration with Essor to ensure that the tools address all objectives. Several discussions impacted the tools design as well as the tools programming. The use of smartphone technology is the first step to ensure high quality data. By using pre-populated information, it allowed to start the interview by confirming that the right individual/business from the sample frame is found. It also enabled the enumerator to confirm/correct all information given during the registration such as the type of business, the contact details, etc. Notably, pre-populated information in the enterprise survey to be confirmed at the beginning included:

- The name of the manager (*dirigeant*) listed in the sampling frame created from the RCCM database. The survey started by confirming that the individual being spoken to was indeed this manager.
- The gender of the manager
- The name of the business registered that the survey would like to discuss (Note, some *dirigeants* listed in the RCCM database have registered multiple businesses, an issue that was solved prior to the survey by only selecting one business per entrepreneur to talk about in the survey.)
- The year of registration
- Whether the business was registered as a *personne morale* or as a *personne physique*.
- The sector of operation of the business
- The email address and telephone number of the manager (if applicable), and the address of the business.

Following pre-testing and discussions, it was decided to provide intervals as answer choices to numerical questions. Similar intervals are used across the tools for comparability purpose. For analysis purposes, some of the key interval variables are converted into continuous variables to allow for easier analysis on the quantity of change in time and cost.

Qualitative research focused on in-depth interviews with GUCE staff, selected businesses and intermediaries, with the aim to engage in more open-ended discussions in which participants could fully explain the registration process and the impact of the GUCE.

In the annex, the final versions of the different tools have been included.

Recruitment, Training and Piloting

After approval of the quantitative research tools, a Forcier researcher travelled to Lubumbashi to train the field teams for two days with the support of a member of Essor's staff. Training covered the sampling methodology, respondent selection, interviewing techniques, team management procedures, and a comprehensive review of the questionnaires, including role-playing exercises. After the training, a two-day pilot was organized to ensure that enumerators were familiar with the questionnaires and the methodology, as well as to test the contact rate and the duration of surveys.

Forcier recruited a total of 30 individuals from Lubumbashi, 15 men and 15 women, who had extensive data collection experience using smartphones and who speak both French and Swahili. Almost all of these individuals had worked with Forcier in the past, including on a previous Essor evaluation, and all of them were recruited on the basis of their completion of a university degree and experiences conducting studies and evaluations in the past. These individuals were recruited using an enumerator roster, which compiles information on all people who have worked with Forcier in the past, and in which each person has been given a grade based on their past performances. Only those with the best grades were selected to participate in training.

Among all trainees, 20 were eventually selected as enumerators, 11 women and 9 men, and 4 as team supervisors, 1 woman and 3 men. Final teams were chosen based on performance and level of understanding during the training and pilot. As concerns supervisors, their selection was also made on the basis of their previous experience working with Forcier.

Following the pilot survey, it was noted that teams were unable to find a sufficient amount of businesses to interview, largely due to the fact that businesses could not be found at the address provided. After consultation with the Essor team, Forcier implemented a new procedure to maximize the response rate during data collection. Indeed, the quota of businesses to reach was structured on a weekly – rather than daily – basis in order to give teams time to locate businesses and obtain their phone numbers (thereby allowing enumerators to set up appointments ahead of time), as well as to facilitate the follow-up of absent or difficult to find businesses.

Data collection protocol

After the training and pilot survey, and once final adjustments had been made and the teams briefed on these changes, fieldwork started. Under the direction of Forcier's Project Officer, four field teams were deployed in Lubumbashi to collect data from business managers and intermediaries for four weeks. The field teams consisted of a supervisor overseeing five enumerators.

At the beginning of each week, team supervisors prepared a list of businesses that they assigned to enumerators. The supervisor's objective was to select 200 businesses per week from the overall sample of businesses - thus, each enumerator was responsible for attempting to interview 40 businesses each week. This selection was made in relation to the indicated location (municipality, district, avenue) of the businesses, taking into account the year of registration (2017 or 2018) and the type of business ("*personne morale*" or "*personne physique*"). Among the list of 40 businesses, supervisors also tried to provide some for which phone numbers were available, to allow enumerators to conduct phone interviews if necessary or to contact the manager in order to arrange an in-person interview. The contact information of the 40 businesses was copied by the enumerator onto their contact form so that they could follow the progress of their work throughout the week. In case the enumerator finished his or her allocation early – through a combination of completing interviews for some and exhausting all attempts to do so for others – the supervisor would assign additional businesses to the enumerator.

During the work week, supervisors reserved the morning of two days for enumerators to attempt to make contact with businesses over the phone. These phone calls allowed enumerators to confirm the validity of the phone number as well as the business' address, the existence of the business, and make appointments with managers for the afternoon or the following days. During the phone conversation, if the manager indicated that he or she preferred to do the interview by phone, the enumerator was allowed to conduct the interview and record the responses in his or her phone.

To better monitor developments on the ground and ensure that data collection was functioning properly, an effective communication procedure was instituted. The use of contact forms at the enumerator level, and follow-up sheets at the supervisor level allowed for accurate tracking of fieldwork progress. These documents allowed supervisors and the Project Officer to effectively monitor enumerators' work and the overall contact rate.

During data collection, enumerators also called supervisors in case of a problem. Whenever the supervisor was unable to resolve the problem himself, he would call or send a message (via WhatsApp, text messaging, Skype) to the Project Officer for guidance. At the end of each workday, the enumerator kept his supervisor informed of the situation experienced during the day, and the supervisor in turn sent an email to the Project Officer with the field situation and the follow-up sheet of his team.

On the basis of this feedback and internal communication, a detailed field report was sent to the Essor team each week, and every two days the first week. This report identified problems with data quality and verifications performed, logistical problems, issues in contacting respondents, possible solutions and any other important details.

Limitations of the Study

Several limitations need to be kept in mind in reading this study. While the methodology was built to obtain the most accurate results possible, the ground reality together with the reality of the program made it challenging in some respects. Below are some of the limitations that needs to be underlined before reading through this report:

- No baseline data was collected prior the creation of the GUCE in Lubumbashi. This means that this study attempts to gather information as old as 2-3 years, therefore based on the 'recollections' of managers on the registration of their business. Thus, some could argue that the precision and accuracy of data from that period may be limited.
- In line with the previous limitation, locating and interviewing the right respondent was far from an easy task. The response rate significantly varies between the "2017" group and the "2018" group of businesses. This was due to the impossibility to track back businesses (wrong physical address, lack of phone numbers, etc.) and that this was particularly true for *personne morale* businesses registered in 2017 – hence the smaller sample than for other groups.
- Gender consideration is part of the study. Impact on time and cost savings will be broken down by male owned and female owned businesses. However, the number of female business owners is limited in the DRC context. Moreover, female response rate is even lower (17% of respondents compared to 21% of sampling frame) as they sometimes required the approval of their male partner. With that said, all final estimates are tested against the gender of the business manager, but only a few statistically significant results appear. As specified at an earlier stage, the scope of this study does not allow for in-depth analysis with regards to gender and social inclusion, however further research on the GUCE will examine these questions and will be shaped by the initial findings of this study.
- Survey design is often the pillar of such a study. In this evaluation, after discussion with Essor, it was decided to use brackets/intervals when it comes to monetary and numerical answers. This decision was the result of a trade-off between letting enumerators type numbers on the smartphone (with the room for error that it implies) and having them select one option from a list instead, in addition to the potential additional risk of confusion on currencies (USD vs. CDF) for open entered numbers, and the exactitude of recollection. This decision is important and can change the way data can be read and analyzed, while providing different options and methods for analyzing the data.
- In this study, data were collected from both businesses and intermediaries. Nevertheless, triangulation is limited as intermediaries, due to ethical consideration, refused to provide information on specific clients (this was tested during the pilot). The intermediary survey was therefore designed to take this into account and ask

about general estimates rather than client-specific information. Thus, triangulation of results is limited and often results in basic trend comparisons.

4. Fieldwork and Data Collection

Quantitative Survey Implementation

As part of quantitative data collection, two phases were organized: the first phase was devoted to conducting the survey with business managers and the second phase with intermediaries – either lawyers or “mandataires.” Each enumerator was to attempt to conduct a maximum of five full interviews per day, depending on the availability of respondents.

Business Managers

In total, 579 complete interviews with business managers were conducted; 165 out of 1026 businesses registered in 2017, and 414 out of 991 businesses listed in the sampling frame as registering in 2018. The final response rate was therefore 29%, and at 16% for 2017 businesses, compared to 42% for 2018 businesses. Of these around one in six managers were female with the proportion split fairly evenly across the different sub-groups. In addition, 317 of the 579 businesses either indicated that they had used an intermediary to register their business or information from the RCCM database indicated they had done so.

These numbers are shown in Table 1, Table 2 and Table 3 below. While Figure 1 shows the geographical spread of the managers interviewed within Lubumbashi using GPS data.

Table 1: Data collected by type of business and by year of registration with corresponding response rate

	Personne physique	Personne morale	Total
Business Registered in 2018	180 (41%)	234 (43%)	414 (42%)
Business Registered in 2017	121 (24%)	44 (9%)	165 (16%)
Total	301 (32%)	278 (26%)	579 (29%)

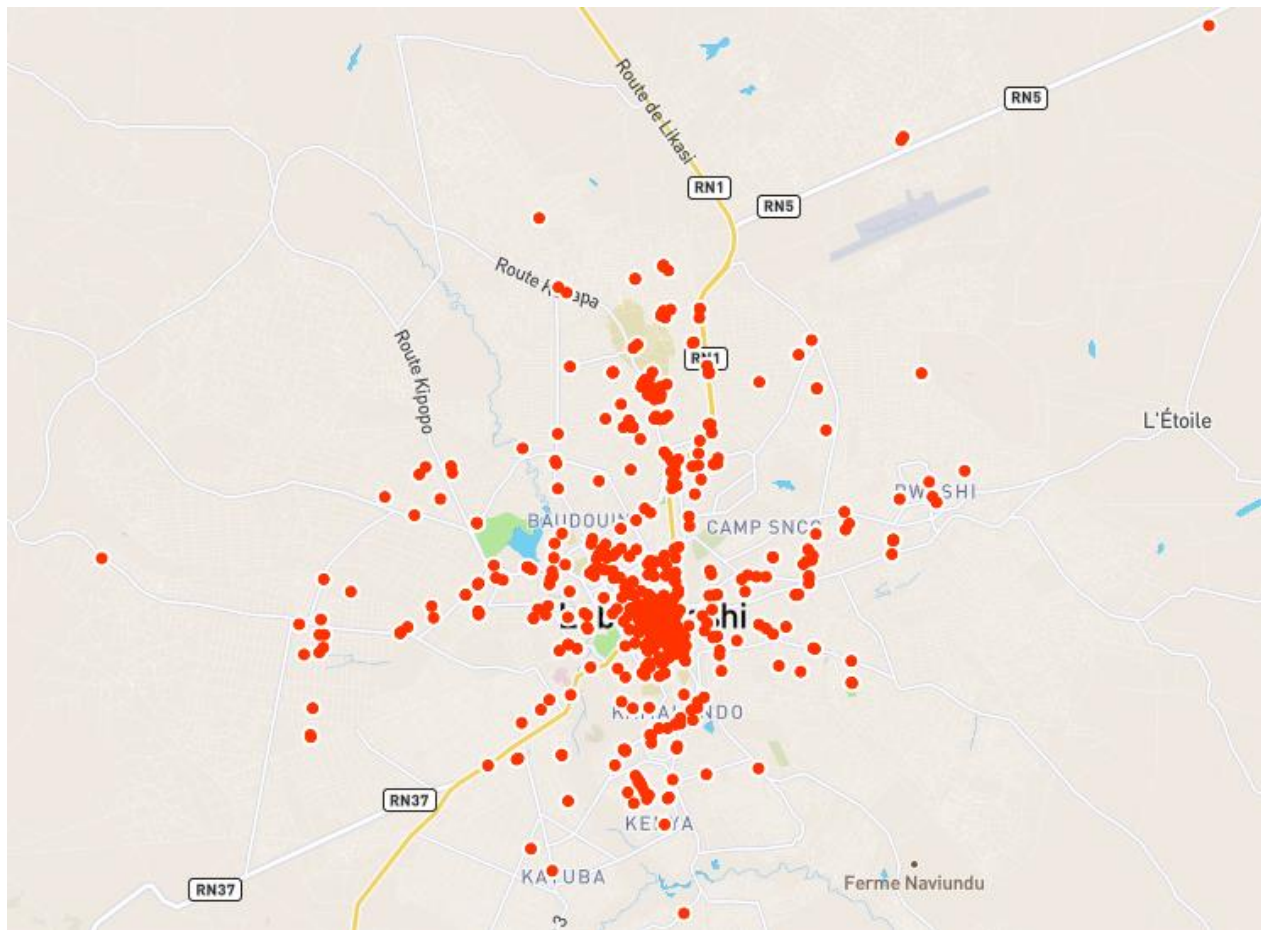
Table 2: Number (percentage) of businesses that declared having used an intermediary to register

	Personne physique	Personne morale	Total
Business Registered in 2018	66 (37%)	172 (74%)	238 (57%)
Business Registered in 2017	60 (50%)	19 (43%)	79 (48%)
Total	126 (42%)	191 (69%)	317 (55%)

Table 3: Number (percentage) of female managers in the business sample

	Personne physique	Personne morale	Total
Female managers of 2018 businesses	31 (18%)	37 (16%)	68 (16%)
Female managers of 2017 businesses	22 (18%)	7 (18%)	29 (18%)
Total female managers	53 (18%)	44 (16%)	97 (17%)

Figure 1: Map of quantitative interviews with business managers



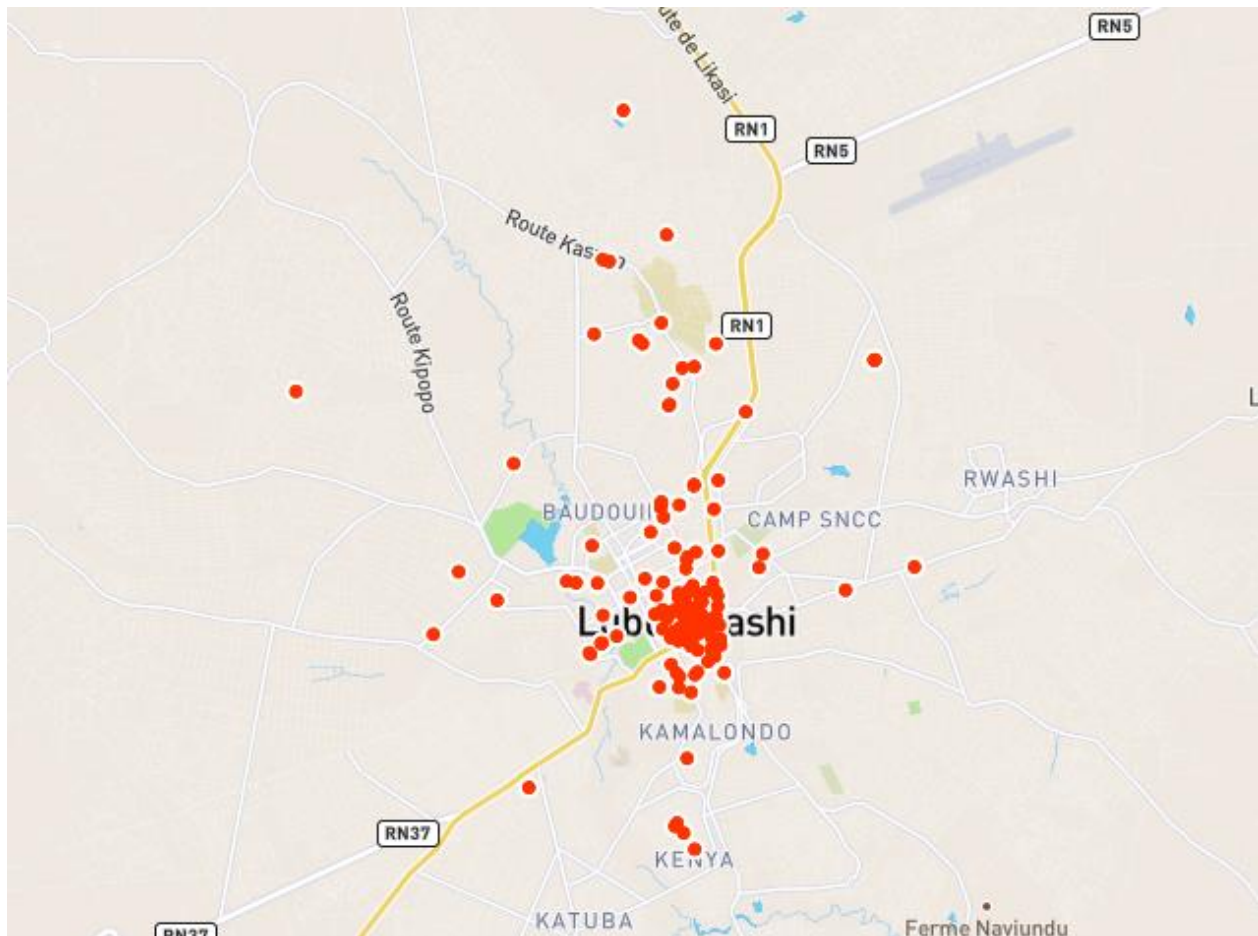
Intermediaries

After interviews were conducted with business managers, teams then focused on reaching intermediaries, using contact information from Essor's sample frame as well as phone numbers and addresses obtained from managers themselves during the first phase of interviews (if they had indeed used an intermediary). In total, teams completed 175 interviews with intermediaries, out of a total of 436 for which information was gathered via the sample frame. Of these, 37 intermediaries were from the original sampling frame (via the *requerant* variable in the RCCM database, see above), and 138 intermediaries came from contact information provided by business managers. The contact rate for intermediaries was therefore 40% overall. As Table 4 shows, 8% of the total intermediary sample was female, two-thirds of the sample acted as lawyers in the intermediary process, while 15% were *mandataires*. An additional part of the sample was made up of employees of the enterprise, and an "Other" category, of which some have been excluded from parts of the analysis, as they are not strictly *intermediaries* in the sense intended for the survey.

Table 4: Intermediaries sampled in the intermediary survey and type as share of sample

	Male	Female	Total	Share of sample
Lawyer working alone	41	7	48	27%
Lawyer working through a Cabinet	52	2	62	35%
Mandataire	26	1	27	15%
Employee of the enterprise	18	1	19	11%
Other	16	3	19	11%
Total	161	14	175	100%

Figure 2: Map of quantitative interviews with intermediaries



Key Informant Interviews

Four qualitative researchers were tasked with conducting in-depth interviews over a period of five days towards the end of the fieldwork phase.

Criteria were designed for selecting participants to each type of interview. For interviews with business managers, Forcier took into account the type of business, the year of registration, the gender of the manager, the involvement of the manager in the registration process, and enumerators' comments during the quantitative phase on the manager's motivation to subsequently participate in a qualitative interview. For intermediaries, Forcier took into account the number of businesses registered per year, the intermediary's gender and the exact function of the intermediary. For interviews with professional associations and employees of the GUCE, respondents' role and gender were taken into account. The objective was to have a representative and diverse group of participants in these interviews. Balancing respondents' gender was particularly difficult, however, as most managers and intermediaries were men.

To organize this work, each qualitative researcher was assigned a list of respondents for each type of interview. In addition, two researchers were responsible for spending a full day at the GUCE to conduct interviews with staff and observe the registration process.

Table 5: Summary of qualitative work

Type of Interview	Initial Objective	Number of Interviews Conducted	Sex	
			Men	Women
« Personne physique » business managers, 2017	4	4	4	0
« Personne physique » business managers, 2018	4	4	3	1
« Personne morale » business managers, 2017	4	4	4	0
« Personne morale » business managers, 2018	4	4	2	2
Intermediaries (Lawyers)	8	7	6	1
Intermediaries (« Mandataires », non-lawyers)	8	7	7	0
Professional Associations	3	3	2	1
GUCE Staff	2	4	3	1
Notaries	1	1	1	0
Total	38	38	32	6

Fieldwork Challenges

Teams faced various challenges in conducting fieldwork, including:

- Addresses not found;
- Unreachable phone numbers;
- Incompatibilities between the names of managers and telephone numbers on the follow-up form;
- Some intermediary lawyers refusing to give information about their clients;
- Some respondents refusing to answer questions on income;
- Some potential respondents being unavailable due to travel (business, leave, medical care outside the country or city, etc.);
- Unavailability of managers because they did not have time to participate in the evaluation;
- Unavailability of intermediaries, who were often on the move or occupied by other business;
- Individuals asking for money to participate in interviews (none was given);
- Some managers and intermediaries refusing to participate in qualitative interviews due to a lack of time, particularly those who they felt they had already spent enough time answering question during the quantitative interview.

Data Validation, Verification and Call-Back Procedures

Data quality is a recurring concern, especially in a difficult environment such as the DRC. In addition to continually building the capacity of its research staff, Forcier maximizes the full potential of mobile data collection technology to implement a systematic, multi-step quality assurance procedure throughout the data collection process.

Forcier always ensures good data quality by using several quality assurance procedures. Daily quality control was carried out during fieldwork and feedback was given to the teams by phone. Each enumerator had a field contact form to complete after each interview. Indeed, information was recorded on paper and given to the supervisor at the end of each data collection day, so that he or she could complete it and send a detailed email to the Project Officer. Moreover, supervisors had to accompany enumerators to some interviews as a way to verify the interview was well performed and data well typed onto the smartphones. In addition, Forcier ensured the quality of the data by implementing phone verifications from the Kinshasa office to ensure that business managers acknowledged that they had indeed spoken with a Forcier enumerator. A total of 371 (64%) business interviews and 95 (54%) intermediary interviews were accompanied by the supervisors. Moreover, each supervisor did one call-back in the end of each data collection day – this means a total of 84 call-backs were performed.

The set of verifications during these calls was as follows:

- Confirm that the respondent spoke to a Forcier enumerator during a telephone or in-person interview
- Verify and confirm the identity of the manager (name and gender)
- Check the business's address
- Confirm the name of the business
- Check the year of registration of the business

Daily quality assurance checks were also carried out by analyzing the data received every night, verifying specifically:

- 1) Duration of each interview;
- 2) Number of 'I don't know' responses in each interview;
- 3) Number of 'I forgot' answers in each interview;
- 4) GPS Coordinates;
- 5) Consistency of responses across multiple, similar, questions

These quality assurance checks allowed the Project Officer to stay in contact with the field teams by giving them detailed and daily debriefings on the quality of the data, and how to improve moving forward. Some enumerators were more closely monitored if their initial data was of a lesser quality than their colleagues.

In the final dataset, the average duration of interviews with business managers was 46 minutes – the median was 40 minutes. All short interviews were carefully reviewed to ensure data consistency. For interviews with intermediaries, the average duration was 49 minutes – the median was 56 minutes.

In addition, some interviews with business managers seemed to have a relatively high number of "I don't know" or "I forgot" responses. Comments made by the enumerators at the end of these interviews indicated a limited level of knowledge on the part of these respondents. Enumerators explained that some managers did not remember some of the information related to the business's registration while others had limited knowledge of the registration procedure given that they had hired an intermediary. In addition, in some cases, respondents showed a lack of trust in answering questions openly.

As already observed during the pilot, income questions often raised doubts and hesitation among respondents. Enumerators explained that managers were reluctant to give an exact figure or even an estimate. [As a result of this finding during the pilot, the business revenue questions were moved to the end of the survey tool to avoid furthering any distrust among the respondent].

For interviews with intermediaries, the rate of "I don't know" or "I forgot" responses was relatively low, reflecting a better knowledge of the subjects covered among this group of respondents.

For any inconsistencies in a respondent's responses, additional checks were carried out by the Project Officer. For example, if the respondent indicated a daily income higher or close to the monthly income, the issue was clarified by calling the enumerator and/or the respondent to check the accuracy of the information. All inconsistencies could be verified and corrected when needed. Typically, one mistake done was that the daily income bracket answer selected was 1\$-5\$ instead of 10\$-50\$. This could be easily checked with respondents and/or enumerator and corrected accordingly. No data had to be dropped or turned into missing during cleaning.

The consistency of the responses regarding the cost of registration was also checked. Thus, it was verified that the sum of the costs paid for each document received did not exceed the amount paid for the registration as a whole. The Project Officer clarified these elements with the enumerators to obtain clear explanations in case the calculations did not make

sense. Enumerators explained that when managers used intermediaries to register the business, they had difficulties remembering the exact amounts paid, and their estimates could lead to some minor inconsistencies.

Data Cleaning

Due to all the verifications implemented during data collection, Forcier was able to ensure that the data was of high quality. Only a few additional manipulations were needed to subsequently obtain a clean dataset. Data cleaning changes made to the raw datasets are summarized below:

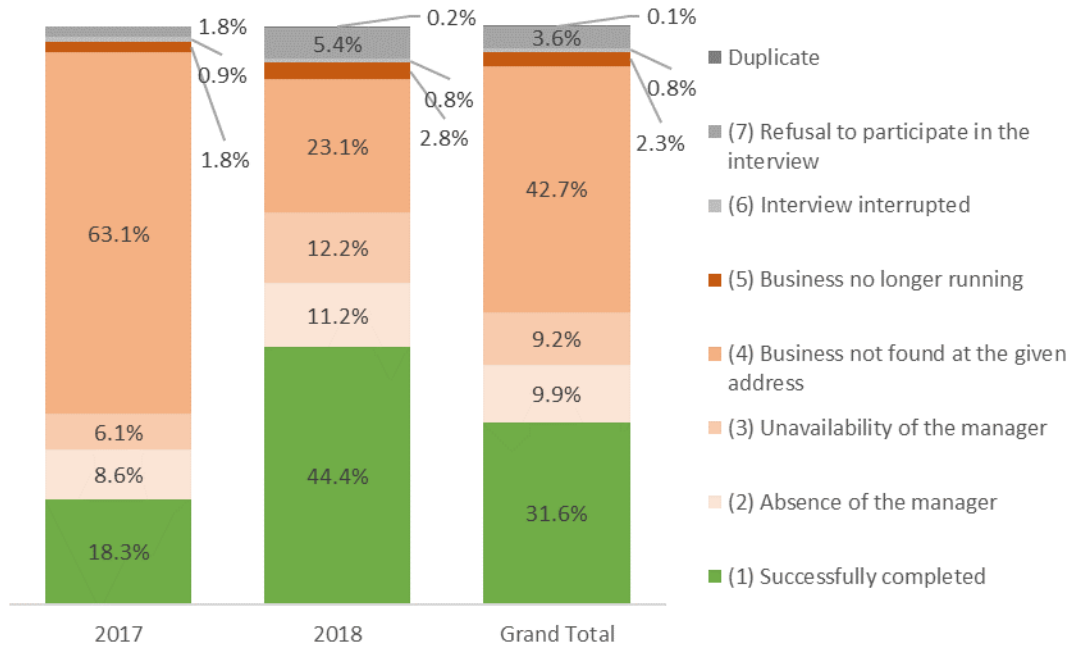
1. Observations sent during pilot were dropped;
2. The date variables were formatted to a more user-friendly format;
3. Recoding of some observations where ‘Other’ was indicated but details given indicated that it could be classified into an existing category instead;
4. Recoding the sample frame verification questions when enumerators selected by mistake the wrong identifying information (obvious from the data content and verified through verification call-backs in some instances);
5. Adding labels for all variables, including for refusals or “I don’t know” answers;
6. Correction of a few answers when the Project Officer was able to verify that they had been wrongly selected by the enumerator (for instance in one case \$0-\$5 was selected instead of \$10-\$50).

5. Results and Data Analysis

Business Sample

Four field teams completed a total of 579 interviews with business managers over the course of three weeks. The following figure summarizes contact rate per year of registration.

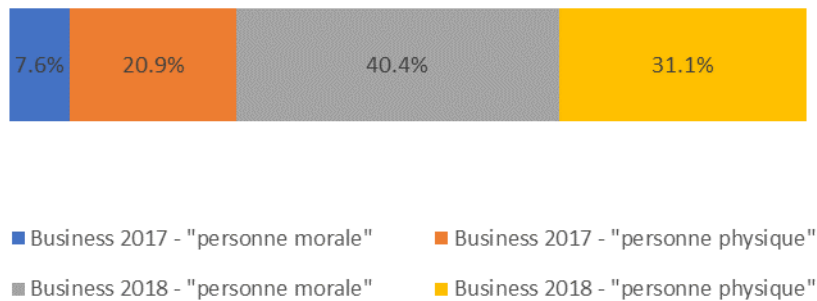
Figure 3: Business Sample – Contact Rate, per year of registration



As Figure 3 shows, the 1,940 businesses in the sample (excluding duplicates) were allocated to the four field teams, with 485 businesses per team. In total, for 191 businesses, the manager was absent for each attempted visit, while for a further 178, the manager was unavailable for an interview at the time of each of the enumerator's visits. 850 additional businesses were simply not located at the designated address and therefore unfindable (even via phone or email). 45 businesses were found to be no longer operational or inactive. Finally, 17 business managers interrupted and did not complete the interview while managers of 67 businesses refused to participate in the interview outright.

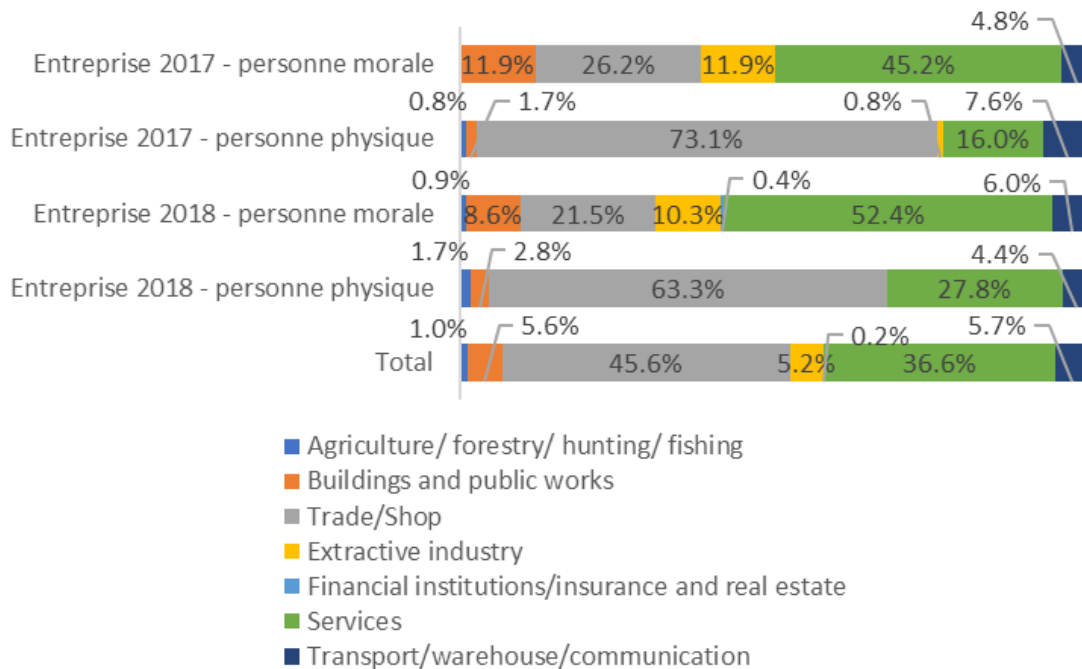
Two specific questions were asked to business managers to verify the pre-populated information from the sampling frame on their type of business and the year in which they had registered. Figure 4 shows the number of businesses that participated in the survey by year of registration and type of business. 29% of interviewed businesses registered in 2017 under the old system, of which 8% are *personne morale* and 21% are *personne physique*. On the other hand, 71.5% of interviewed businesses registered in 2018, of which 40.4% are *personne morale* and 31.1% are *personne physique*. As previously explained, the response rate for 2017 businesses is significantly lower mainly due to inaccurate addresses and the absence of contact telephone numbers for this half of the sampling frame, hence the uneven share of sample between 2017 and 2018 registered businesses.

Figure 4: Share of business per type and per year of registration



In view of the sector of activity of interviewed businesses, the majority of *personne morale* businesses operate in the services sector – they represent 52% of interviewed *personne morale* businesses that registered in 2018 and 45% of those that registered in 2017. On the contrary, the majority of *personne physique* businesses that were interviewed operate in the “trade” sector – they represent 63% of *personne physique* businesses that registered in 2018 and 73% of those that registered in 2017. Figure 5 also shows little to no survey participation as concerns businesses in the sectors of agriculture, forestry, hunting, fishing, and financing.

Figure 5: Sector of Activity

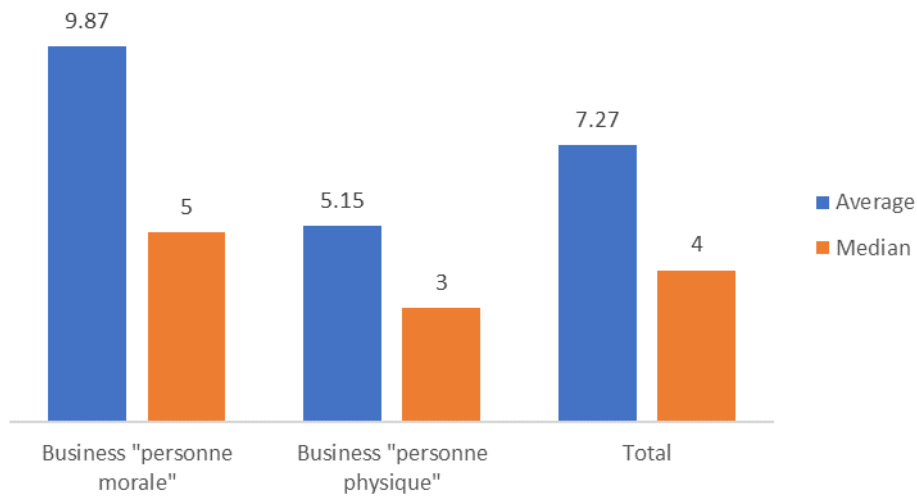


One other characteristic of businesses that may be relevant to observe is the number of employees – it is commonly used as a proxy for business size in such study. In general, it can be noted that *personne morale* businesses have more employees than *personne physique* businesses, although the reverse was true for 2017 by a small margin (lower response rate). Indeed, the average number of employees working in *personne morale* businesses was 10, while it was 5 for *personne physique* businesses (Figure 6). Observing the median allows to understand that even though what can be observed in the average still appears, it is to be noted that amplitude is smaller than it seems to be: at least 5 employees for most of the

personne morale and at least 3 employees for most of the *personne physique* businesses. The average number of employees in the case of *personne morale* businesses is increased by a few very large such businesses that are part of the sample.

Moreover, it is to be noted that the answers to this question are not presented per year of registration. In fact, each business being at a different phase of the lifecycle of the company, it would not be comparable to look at the year of registration of the business. In the context of DRC, it is also a fact that businesses tend to begin to run before registration (40% of them according to the data). All this is to be kept in mind when looking at the raw results in terms of number of employees.

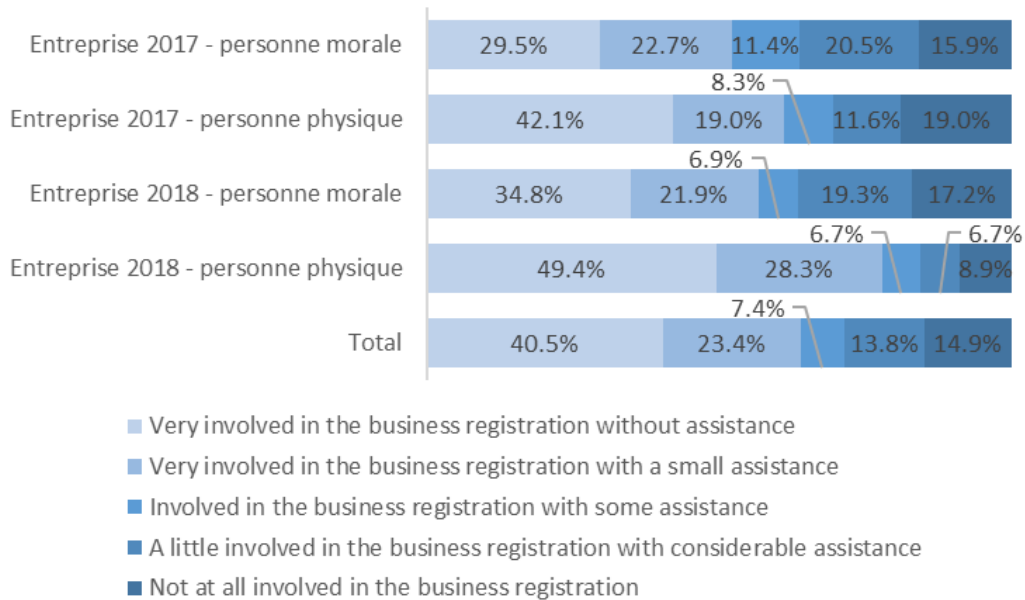
Figure 6 : Number of employees in the businesses



In addition, the survey sought to determine managers' involvement in the registration process, which made it possible to evaluate the reliability of their answers concerning the process. Indeed, many managers make use of lawyers or "mandataires" (non-lawyers / informal fixers, helping with the process of business registration for a fee) to act as intermediaries and manage the registration process for them. As the Figure 7 below details, the level of involvement in the registration process goes down in the case of *personne physique* businesses, whatever the year of registration considered. For instance, 78% of managers of *personne physique* businesses registered in 2018 declare they were "very involved" in the registration process with no or small assistance. By mean of comparison, 57% of managers of *personne morale* businesses registered in 2018 declare the same. This is as would be hypothesized by Essor's earlier qualitative research in which *personne morale* businesses are the bigger market for lawyers as intermediaries in the registration process, and as larger businesses that they may have greater resources to spend on such aid in the registration process.

During in-depth interviews with business managers, one stated: "We used intermediaries because we did not understand or master the registration process." Many managers do not believe they have enough knowledge of the process and think that the support of an intermediary can speed it up. In such a case, the manager will have less precise information to provide with regards to costs and time because they themselves did not participate in the process. Nevertheless, it can be underlined that for registration that took place in 2018 (through the GUCE), the level of implication from the head of the business seems to increase for both *personne physique* and *personne morale* – though the difference is only statistically significant for *personne physique* businesses. This would potentially mean that with the creation of the GUCE, the process is better understood and easier to handle without the help of an intermediary.

Figure 7 : Level of involvement of the head of the business in the registration process



Intermediary Sample

For the survey conducted with intermediaries, there was a sampling frame of 436 individuals to contact drawn from both the *requerant* variable in the original sampling frame, and from intermediaries cited directly by managers during the enterprise survey. As shown in Figure 8, a total of 175 (40%) interviews were successfully completed, as 32 (7%) intermediaries were absent, 98 (23%) were unavailable, for 89 (20%) their addresses could not be located, and 38 (9%) refused to participate in the evaluation.

Figure 8: Intermediary Sample – Contact Rate

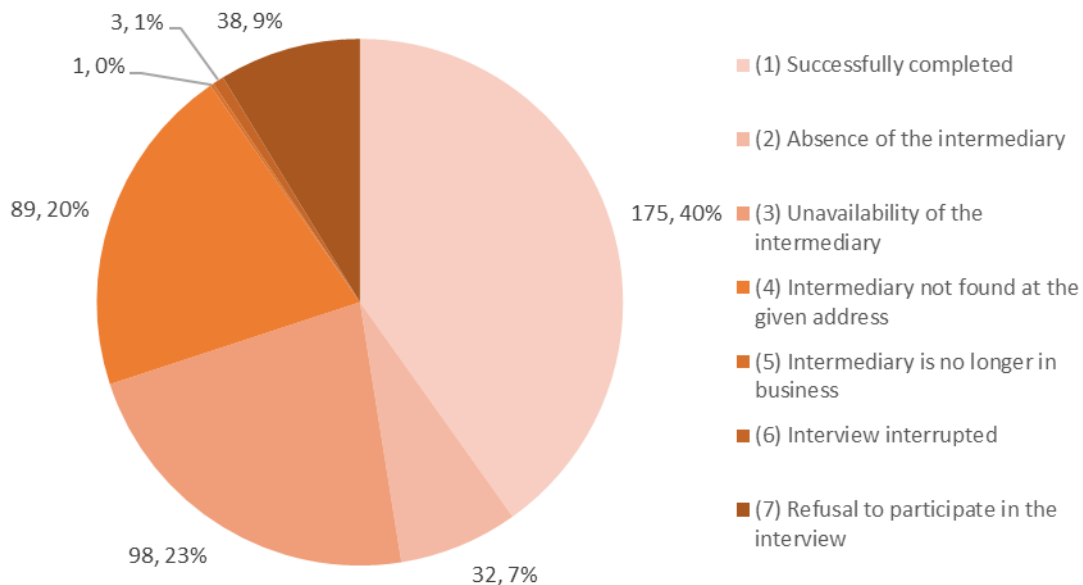
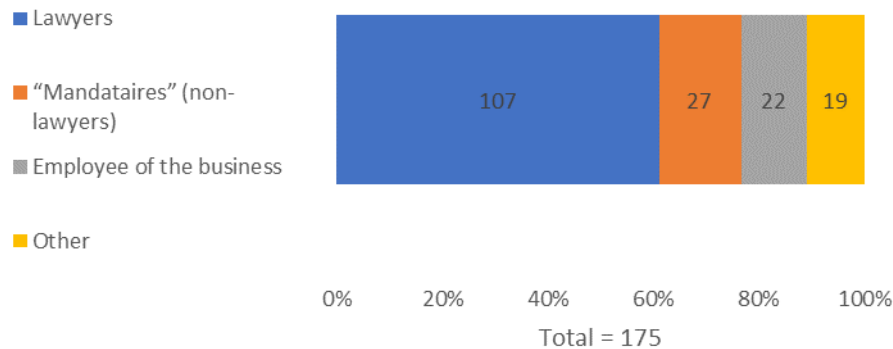
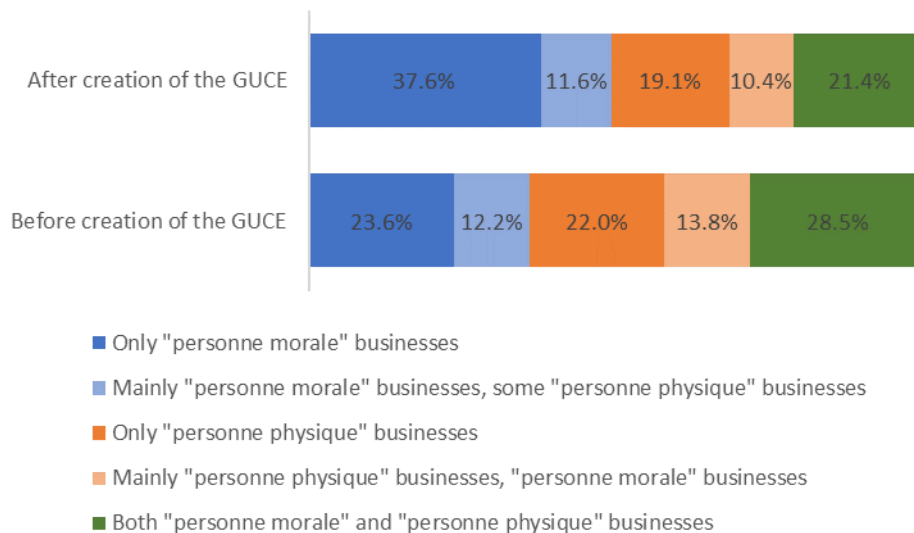


Figure 9 : Intermediary Sample – Totals per Roles



The survey tool made it possible to identify the role or function of each intermediary interviewed in the registration process. Indeed, four types of intermediaries were identified. Figure 9 shows that a large majority of them who assisted businesses to register are lawyers: 107 intermediaries were lawyers, 27 were “mandataires” (non-lawyers), 22 were employees of the registered business and 19 were other persons who identified as friends, family members or acquaintances of the business managers. Business owners tend to seek help from lawyers because they perceive them as being more trustworthy, and they also believe that they have a very strong influence on, and knowledge of, the business registration process. One lawyer who participated in an in-depth interview shared that: “Business managers solicit lawyers because they [believe there is] a moral guarantee [associated with them].”

Figure 10 : Type of businesses that intermediaries help registering



According to intermediaries interviewed, the share of clients was almost perfectly evenly distributed between *personne morale* and *personne physique* businesses before the GUCE was established. However, as the Figure 10 indicates, it seems to be more *personne morale* businesses which require the services of intermediaries after the opening of the GUCE – even though causality cannot be implied at this stage. This does not consider the number clients and solely focus on the type of businesses that intermediaries support to register – probably reflecting more on the complexity of the registration

process depending on the type of business. Registering a business *personne morale* is a different procedure and such companies may be more willing to get support from a lawyer or another type of intermediary.

Completion of registration

In order to be considered fully registered, a business must have received documents from several state institutions. These various documents are not all sent at the same time, nor do they take the same amount of time to be processed.

The RCCM number is the easiest document to obtain. One manager stated during a qualitative interview that: "*The RCCM number can be granted on the same day as the payment is made if there are not many applicants that day.*" The tax number, in contrast, is often received last, in part because it is issued from Kinshasa, creating a delay in its delivery to other cities like Lubumbashi.

Table 6: Completion of registration by type of business and year of registration (% of businesses interviewed which received each document)

	RCCM Number	IDNAT Number	Tax Number	INSS Number	INPP Number	"Statuts d'entreprise"
Business 2017 - personne morale	97.7%	88.6%	93.2%	77.3%	72.7%	88.6%
Business 2018 - personne morale	97.0%	94.4%	89.7%	89.7%	86.3%	95.7%
Business 2017 - personne physique	94.2%	81.8%	84.3%	53.7%	40.5%	Not required
Business 2018 - personne physique	95.6%	89.4%	70.0%	72.8%	61.1%	Not required

Table 7: Statistical relationships (t-tests)

	RCCM Number	IDNAT Number	Tax Number	INSS Number	INPP Number	"Statuts d'entreprise"
Business 2017 - personne morale	No significant difference	No significant difference	No significant difference	More likely in 2018	More likely in 2018	More likely in 2018
Business 2018 - personne morale				p-value = 0.02	p-value = 0.02	p-value = 0.02
Business 2017 - personne physique	No significant difference	More likely in 2018	Less likely in 2018	More likely in 2018	More likely in 2018	Not required
Business 2018 - personne physique		p-value = 0.03	p-value = 0.00	p-value = 0.00	p-value = 0.00	

Table 6 details the likelihood of experiencing a complete registration, by type of business and year of registration. All observed statistical differences have been tested using a t-test which attest of the significance of the relationships observed – table 7. For the large majority of cases, *personne morale* businesses obtain their documentation following the registration process. The INSS and INPP numbers as well as the "Statuts d'entreprise" are the types of documents that are more likely to be received when the registration took place in 2018 than before the GUCE. Such businesses registered in 2017, 23%, 27% and 11% did not receive the INSS number, the INPP numbers and the "Statuts d'entreprise", respectively. These figures decrease when registration from 2017 are considered implying a positive impact of the creation of the GUCE in terms of completion of the registrations for this type of businesses. In other words, *personne morale* businesses registered in 2018 are 12% more likely to have received the INSS number compare to the ones

registered in 2017. Similarly, there are 14% more likely to have received the INPP number and there are 7% more likely to have received notarization of their “Statuts d’entreprise”. For the other steps, there are no significant differences in terms of likelihood for the *personne morale* businesses.

Personne physique businesses show similar trends, although with bigger margins and for a larger number of registration steps. The only procedure where there is no significant difference if the registration took place in 2017 or in 2018 is the RCCM number. In both cases, that document seems well received in almost all instances (which is not surprising by definition with this sampling frame, which derived from the RCCM database – i.e. all businesses have a RCCM number, the 2 to 3% of businesses that report they do not may not understand the terminology). For the IDNAT number, it is 8% more likely that a *personne physique* business received the document if it registered in 2018. For the INSS and the INPP numbers the differences magnitude is higher – if they registered in 2018 through the GUCE they are around 20% more likely to have received these numbers (19% and 21%, respectively). The tax number, however, is 14% less likely to have been received for such businesses that registered in 2018, compare to similar businesses that registered in 2017. This could indicate that the GUCE is having challenges to integrate the tax number procedure into the new system, especially for the *personne physique* businesses – as the GUCE staff interviewed explains: “Also the delivery of documents from the external administration, especially obtaining the tax number [is difficult]”

Overall, these results indicate that the creation of the GUCE improved the completeness of the registration process at the business level. Both *personne morale* and *personne physique* businesses are more likely to have received most or all documentations needed when they registered in 2018 through the GUCE. This is particularly the case for businesses *personne physique* which were less likely to receive the INSS and the INPP numbers in the previous registration system. However, one step of the registration does not seem to be well integrated within the GUCE process for *personne physique* businesses, namely obtaining the tax number (*numero d’impot*). Finally, difference per gender was considered and nothing statistically significant appeared except for the IDNAT Number for *personne morale* businesses where women seem 9% less likely to have received the document.

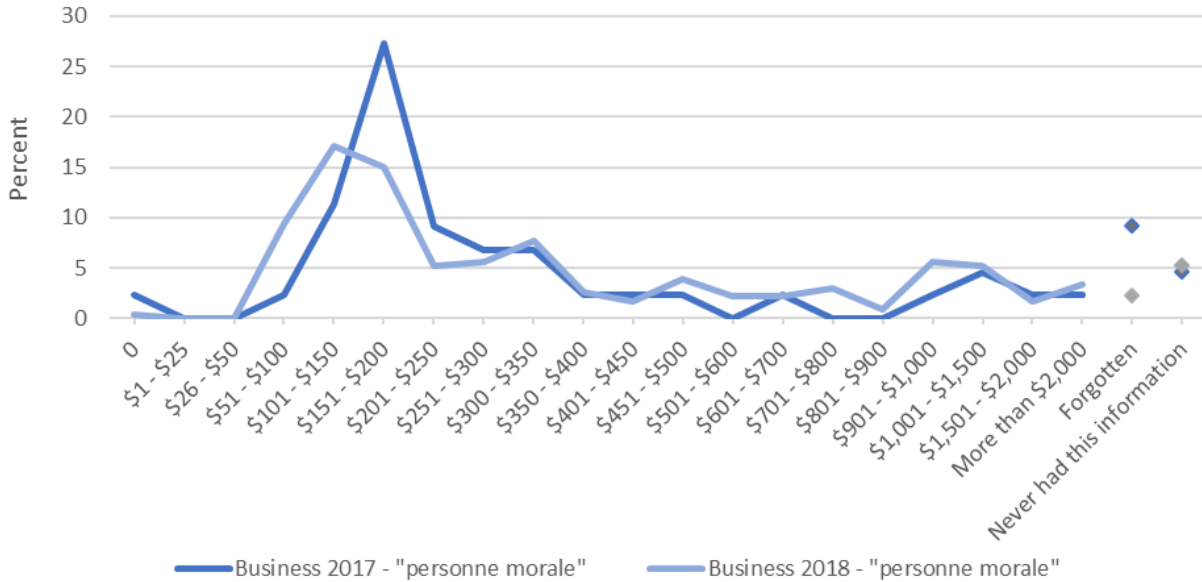
Cost of registering a business

Formal costs

As discussed earlier, registering a business is crucial to give entrepreneurs access to capital and legal protections. The GUCE was set up to reduce the time and cost of registration in DRC, where the process could be both expensive and take a long time to finalize. In this section, descriptive statistics are used to take a first look at the information collected before evaluating a potential impact of the GUCE Lubumbashi in a later section which will present regressions. It is important to bear in mind that the use of intermediary and the subsequent cost that may be implied are also not taken into account at this stage. That component of the registration cost will be further developed and analyzed in the following section.

The data collected from business managers shows that there seems to be a slight increase in the cost of registration for *personne morale* businesses when using the GUCE. As figure 11 indicates, the most common cost of registration reported by such businesses registered in 2017 was in the range of \$151 and \$200 (for 27% of corresponding business owner interviewed) while for 2018 it is in the range of \$101 and \$150 (for 17% of corresponding business owner interviewed) – even though still 15% reported they paid between \$151 and \$200. This slight increase is however not verified statistically. When performing a t-test to evaluate the relationship between the total cost and the year of registration, it is found that no significant link can be established at this stage.

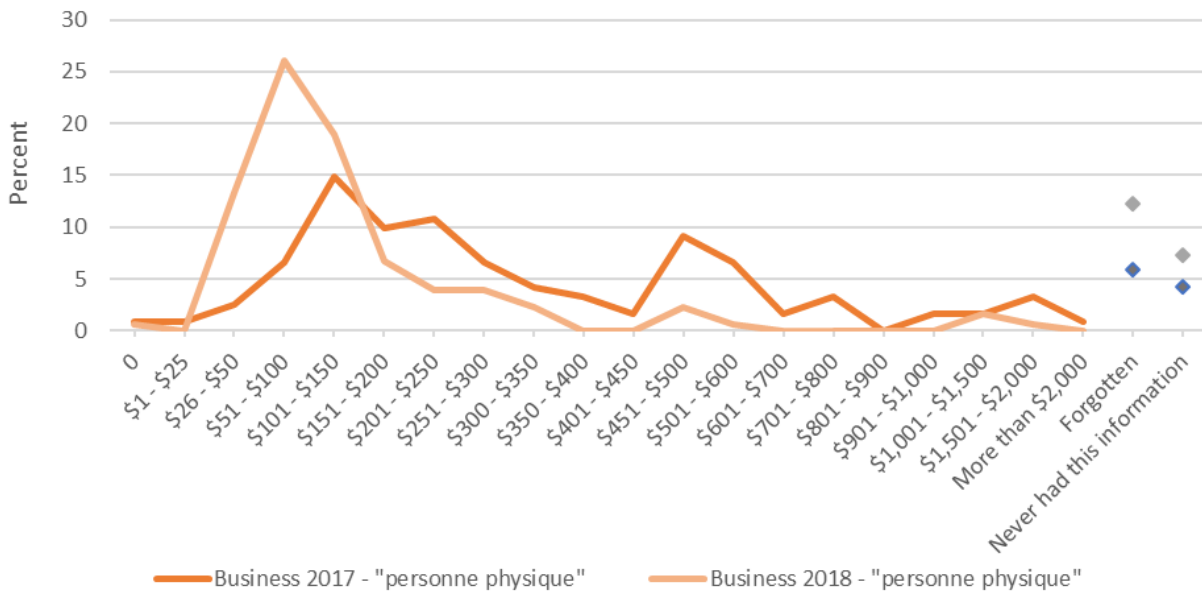
Figure 11: Total cost of registering the business by year of registration – “*personne morale*”



T-test results : No significant differences

On the other hand, a rather more visible difference is observed in the distribution of the data collected from *personne physique* business owners. Figure 12 shows that in 2017, the most commonly range for the cost of registration reported was between \$101 and \$150 for these types of businesses (15% of answers), while in 2018 it was in the range of \$51 and \$100 (26% of answers). This decrease is indeed verified by running a t-test between the cost and the year of registration for the *personne physique* businesses. It clearly indicates that the mean of the cost reported is lower for business owners who registered in 2018 through the GUCE (p-value equals 0).

Figure 12: Total cost of registering the business by year of registration – “*personne physique*”



T-test results : cost in 2017 < cost in 2018 (p-value=0.00)

Quantitative data collected from intermediaries, meanwhile, seems to show similar trend – the creation of GUCE decrease the total cost of registration. More precisely, in terms of average net cost (excluding potential intermediary fee), as shown in table 6 below, the most common response (mode) given by the interviewed intermediaries is between \$451 and \$500 before the creation of the GUCE for *personne morale* businesses. In the meantime, they report the mode is in the range of \$51 to \$100 for the same type of business after the GUCE was established in Lubumbashi. The magnitude of change is lower when the *personne physique* businesses are considered. The intermediaries interviewed most commonly report that the net cost for registering a *personne physique* business was on average between \$101 and \$150 before the GUCE was opened. By comparison, they more often respond that it would rather cost between \$51 and \$100 to register the same type of business through the GUCE. Note that the distribution of responses given for both type of businesses is rather spread when the pre-GUCE period is considered – that seems to indicate that the net costs for registering a business before the GUCE was established could vary significantly. The business owner gender was also considered and tested against the costs paid for registering a business: no statistically significant differences could be found.

Table 8: Reported cost of business registration according to intermediaries (excluding intermediary fees)

Most common response (mode)		
Business personne morale	Before GUCE	451 - 500 USD
	After GUCE	51 - 100 USD
Business personne physique	Before GUCE	101 - 150 USD
	After GUCE	51 - 100 USD

Informal costs and costs per registration step

As part of the main business quantitative survey, a series of questions were asked to identify all the costs, formal and informal, associated with each step of the registration process. To register a business in 2017, or before the introduction of the GUCE, an entrepreneur or intermediary had to visit several different institutions, from which to obtain the necessary documentation. For each institution a fee had to be paid, the amount of which varied from one institution to another. Because there were multiple steps, and institutions, to follow, there were multiple opportunities for various officials to request for additional payments, or informal fees. Although many agents did not directly ask applicants for such a “motivation” fee, the latter understood that such a payment would hasten the process and that sometimes it was the only way to ensure that the registration would move forward. During an in-depth interview, one manager explained that these informal costs were so rampant that they could almost be considered formalized in certain cases: *“the ‘motivations’ were included in the [total] fee to be paid, they called them ‘administration costs.’”* One entrepreneur added that *“the agents asked for “sugar” or “transportation money” so that the process could progress quickly”,* while another said *“there were motivation requests, they asked for sugar or phone credit⁴, I gave 10,000 Congolese francs or 5000 Congolese francs.”* In most cases, managers did in fact pay these incentives to speed up the registration process. Intermediaries faced a similar situation, as one lawyer said during an interview that *“the expected results often did not come until officials received their bribe. At each step we gave something, so the file would go fast”* while another shared that *“the agents asked us for informal fees, it has become a practice. They called it ‘administrative fees,’ it was just to speed up the process, you had to pay 10,000 Congolese francs.”*

Overall, businesses registered at the GUCE did not experience the same problems as the ones registered through the old system, in part because the official cost of registration via the GUCE is known to all beforehand. Some managers reported that they had paid bribes to GUCE agents, but this was the minority – and most of these cases involved *personne physique* businesses. Table 9 below shows in detail whether an informal cost was paid during each registration step as well as the most commonly reported total cost of registration for each step. Through the GUCE, the likelihood of having to pay some informal costs is less compared to the old system. As per the data collected, this is true for both types of businesses, though the decrease margin appears to be bigger in the case of *personne morale* businesses. For instance, for businesses registered in 2017 through the old system, they are over a third to declare they had to pay some informal

⁴ Transport costs, motivation, sweetness, are common terms to refer to bribes.

cost to obtain the RCCM number: 37% of the *personne morale* businesses and 34% of the *personne physique* businesses. The answers to the same question for businesses registered in 2018 through the GUCE give 7% and 18% of instances where informal costs were part of the process to obtain the RCCM number, respectively for *personne morale* and *personne physique* businesses. The only exceptions are the INSS and INPP numbers where there is no significant difference between the answers given by *personne physique* businesses registered in 2017 through the old system and the ones registered in 2018 through the new system. The biggest likelihood-drop of paying informal costs is for the process of getting the notarial status of the *personne morale* businesses, “Statuts d’entreprise”. While in 2017, the majority of businesses, 59%, said they had to pay some informal costs to obtain that document, this drastically changed in 2018 with the GUCE procedure replacing the old system with 10% of the eligible businesses which had to pay informal costs to obtain the same document.

Looking then at the total cost paid for each of the registration steps, comprehensive results are observed. In fact, while the most common answer (mode) gives some indications, it is not always reflecting the overall reality. Looking at the t-test results instead provide a better insight of the real change in terms of cost bared by businesses to register. For almost every registration step, no matter the type of business considered, the t-test results show that the costs are smaller for businesses registered in 2018 through the GUCE compare to businesses registered prior the creation of the GUCE. The only exceptions are, in the case of the *personne physique* businesses, where no statistically significant differences can be found in the costs paid for obtaining the tax number and the INPP number. For the *personne morale* businesses, there seems to be no significant difference in terms of the cost paid for obtaining the “Statuts d’entreprise” – only the informal costs have decreased. In reading through the t-test results, it is nevertheless important to keep in mind the structure of the data and the level of stratification implying small comparison samples, less degree of freedom and less test power.

Table 9: Costs by registration step with t-test result

	Informal costs paid? (% of ‘Yes’) ⁵				Total costs (mode)			
	“personne morale”		“personne physique”		“personne morale”		“personne physique”	
	2017	2018	2017	2018	2017	2018	2017	2018
RCCM Number	36.7%	7.1%	33.9%	17.5%	\$6 - \$25	\$26 - \$50	\$26 - \$50	\$26 - \$50
	<i>Less likely in 2018</i> <i>p-value = 0.00</i>		<i>Less likely in 2018</i> <i>p-value = 0.00</i>		<i>Smaller cost in 2018</i> <i>p-value = 0.00</i>		<i>Smaller cost in 2018</i> <i>p-value = 0.00</i>	
IDNAT Number	26.8%	5.4%	33.1%	20.4%	\$6 - \$25	\$26 - \$50	\$26 - \$50	\$26 - \$50
	<i>Less likely in 2018</i> <i>p-value = 0.00</i>		<i>Less likely in 2018</i> <i>p-value = 0.01</i>		<i>Smaller cost in 2018</i> <i>p-value = 0.01</i>		<i>Smaller cost in 2018</i> <i>p-value = 0.00</i>	
Tax Number	36.6%	7.5%	43.2%	19.3%	\$6 - \$25	\$0	\$26 - \$50	\$26 - \$50
	<i>Less likely in 2018</i> <i>p-value = 0.00</i>		<i>Less likely in 2018</i> <i>p-value = 0.00</i>		<i>Smaller cost in 2018</i> <i>p-value = 0.02</i>		<i>No significant differences</i>	
INSS Number	11.6%	3.1%	13.6%	13.6%	\$6 - \$25	\$6 - \$25	\$26 - \$50	\$26 - \$50
	<i>Less likely in 2018</i> <i>p-value = 0.01</i>		<i>No significant difference</i>		<i>Smaller cost in 2018</i> <i>p-value = 0.00</i>		<i>Smaller cost in 2018</i> <i>p-value = 0.04</i>	
INPP Number	14.3%	3.5%	16.7%	14.1%	\$6 - \$25	\$6 - \$25	\$6 - \$50	\$26 - \$50
	<i>Less likely in 2018</i> <i>p-value = 0.00</i>		<i>No significant difference</i>		<i>Smaller cost in 2018</i> <i>p-value = 0.01</i>		<i>No significant differences</i>	
	58.8%	10.2%	<i>Non eligible</i>		\$1 - \$25	\$0	<i>Non eligible</i>	

⁵ The most common answer for the informal cost amount (mode), if any, is in the range \$0-\$5 for every registration step no matter the registration year.

“Statuts d'entreprise”	<i>Less likely in 2018 p-value = 0.00</i>		<i>No significant differences</i>	
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Some entrepreneurs and intermediaries paid these incentives in 2018 without agents having even requested them, however, out of habit. Indeed, a manager explained that *"normally [the agents] do not ask [for a bribe], we are the ones who give things to go fast, speed up the process and every time you come for a registration, you have to give something."* Another intermediary, however, did highlight that some officials still did seek for extra payments: *"[agents] had to change the status by complying with the new OHADA system, so the notary indirectly asked for the money, I gave \$30 to \$50."* It therefore appears that side payments have decreased overall, but that some managers or intermediaries still provide them out of habit, while some agents still ask for them in a more indirect manner.

Use of intermediaries and their fees

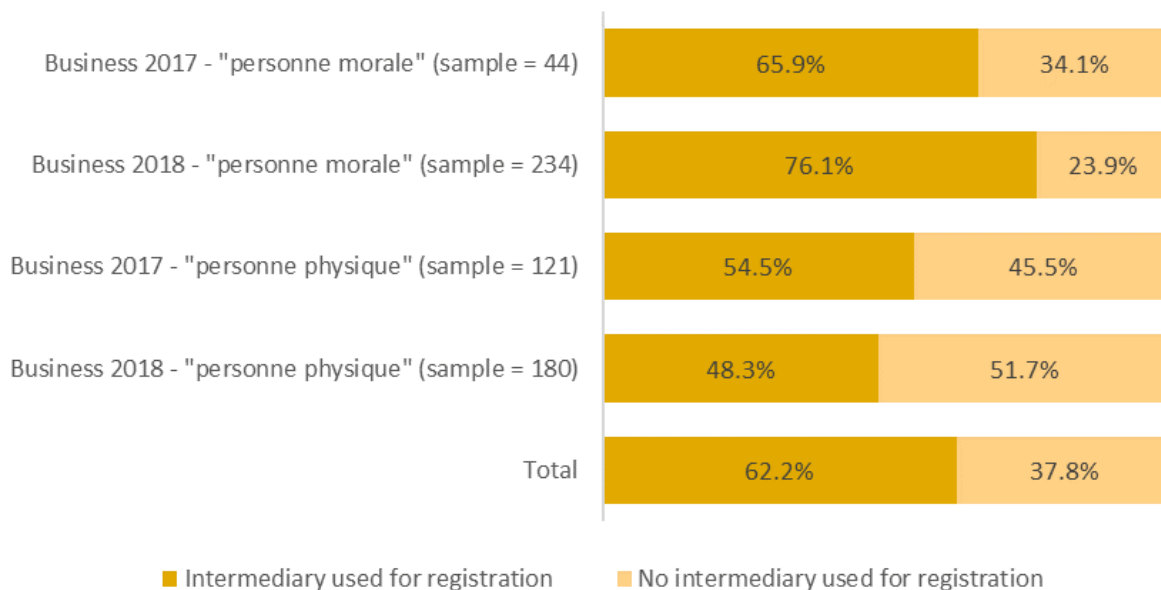
As previously discussed, many business managers call on intermediaries, such as lawyers and “mandataires”, to undertake the registration process on their behalf.

In general, the reasons that entrepreneurs use intermediaries can be summarized as follows:

1. Intermediaries have the knowledge and mastery of the registration process that managers do not.
2. Managers did not have enough time to complete the registration process themselves. Indeed, one manager shared that *"it was easy for me to take care of something else and let the intermediary carry out the registration process."*

As shown in figure 13, more than half of managers interviewed made use of an intermediary. 66% of *personne morale* businesses used an intermediary in 2017 and 76% in 2018. 55% of *personne physique* businesses used an intermediary in 2017 and 48% in 2018. Note – neither the differences for *personne morale* businesses nor *personne physique* businesses of intermediaries between 2017 and 2018 are statistically significant.

Figure 13: Use of intermediaries in registering businesses, by year of registration and type of business



For those stating they had used an intermediary in the survey, 57% of *personne morale* businesses said they hired a lawyer (*Avocat professionnel*), compared to 39% of *personne physique* businesses. In contrast, 30% of *personne physique* businesses naming their intermediary role cited a “*Mandataire (non-Avocat)*”, compared to 16% of *personne morale* businesses.

As part of the quantitative surveys, questions were also asked to determine the fees that these individuals received for their services. These differed depending on the type of intermediary but also on the tasks given to the intermediary, given that some managers were still somewhat involved in the process even when they hired someone to help them. As table 10 shows, the most common cost paid by *personne morale* business managers was \$26-\$100 in 2017 and \$51-\$100 in 2018. For *personne physique* businesses, intermediaries fees were most commonly \$26-\$50 in 2017 and \$26-\$50 in 2018.

Some business managers thought that the fee paid to intermediaries was exorbitant. One explained that “*at each meeting I had to give him the money [yet the process] was not expeditious. The fees charged were high and I spent too much, at least \$250 to \$350.*” Another manager said that “*the fee was exorbitant at \$200.*” Some intermediaries, in contrast, believed that the fees paid by managers had fallen because of the new registration procedure and the creation of the GUCE: “*The fees have changed or decreased because the entrepreneurs [now] know [exactly] how much the GUCE charges.*” Indeed, the GUCE appears to have had the benefit of clarifying the formal fees to be paid for registering a business, simplifying managers’ calculations when determining how much to spend on informal fees and intermediaries, if at all.

Table 10: Cost of using intermediaries, if any, by year and type of business

	Intermediary fee (mode)	T-test result
Business 2017 - personne morale	\$26 - \$100	<i>Higher in 2018</i> <i>p-value = 0.03</i>
Business 2018 - personne morale	\$51 - \$100	
Business 2017 - personne physique	\$26 - \$50	<i>No significant differences</i>
Business 2018 - personne physique	\$26 - \$50	

During in-depth interviews, some managers regretted using intermediaries while others thought it was important. One explained that “*it was not worthy, I had to [in fact] do the registration myself*” while another claimed that “*the experience was not good because I spent a lot of money with the intermediary but I had to do the registration alone.*” Yet another gave a different outlook: “*[the intermediary] already knew the steps of the registration process and he guided me.*”

Figure 14: Number of businesses registered by the intermediaries, before and after the establishment of the GUCE

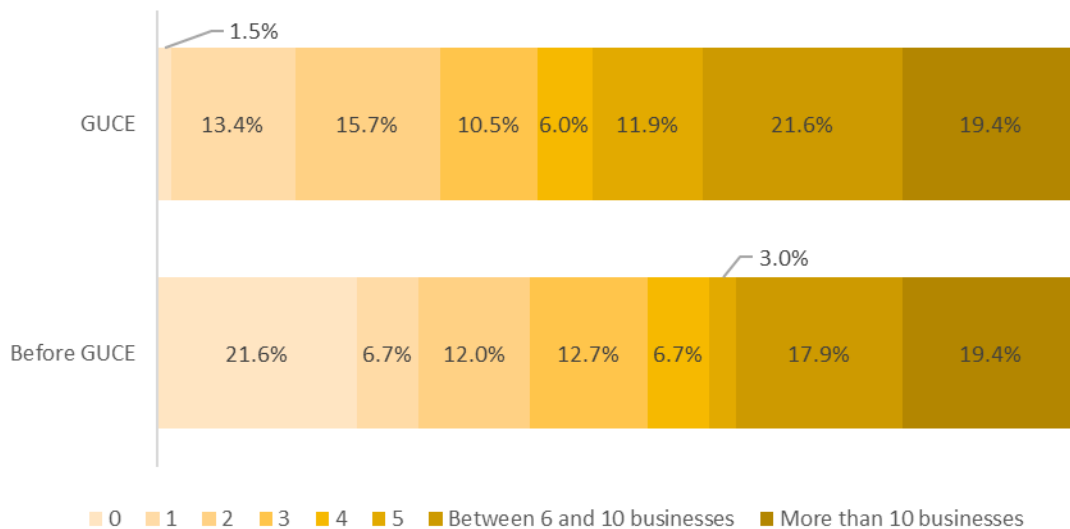


Figure 14 shows the number of businesses that each intermediary was able to help register before and after the introduction of the GUCE. Lawyers were much more solicited by entrepreneurs than “mandataires” and others. On average, a lawyer registered two businesses a year.

Time to register a business

During the survey, enumerators asked managers and intermediaries about the amount of time spent on the registration process, specifically how much time it took to register. In this study, registration time can be defined in two ways: time for completion of the registration (“time taken”), and time actually spent by the individual business owner registering (“time spent”). The first one is measured by asking the number of visits to the governmental institutions the business owner had to undertake combined with the average length in time of such visits; while the second is rather a direct question of how long the overall registration process took.

It is important to repeat that not all registration documents are provided to applicants on the same day, depending on the availability of the agents responsible for approving them. For the applicant to be in possession of each document can take a lot of time, and some never receive them at all. Therefore, managers or intermediaries often have to visit the different institutions or the GUCE several times to inquire about these documents and push the process forward. And for the pre-GUCE registrations (2017), multiple institutions would need to be visited for the various registrations.

“Time spent” to register a business

Often, the registration of a business requires several visits to the institutions concerned: to open the file, to drop off additional documents or simply to request or attempt to retrieve the registration outputs. To better evaluate the “time spent”, answers given on the number of visits are combined with the average duration of each visit as reported by the respondent. This involves transforming two categorical variables into continuous variables before multiplying them to obtain the *number of hours personally spent by the business manager for registering his / her business*. This manipulation is possible since categories correspond to an actual integer value (1 visit = 1, etc.) instead of brackets with varying intervals. As it will be discussed at a later stage, such transformation of categorical variables is not always accurate depending on the category list defined during tool design.

As per the table 11 below, for *personne morale* businesses, the majority spent 6 hours or less to register in 2017. The same median is 4 hours in 2018. However, t-test result shows that the difference is not statistically significant. On the contrary, the difference margin is clearly higher when *personne physique* businesses are considered. While the average is three times higher for 2017 registrations, the median is more than twice as high: 8 hours spent for registering a business in 2017 against 3 hours spent for registering a business in 2018. Moreover, when running a t-test the difference appears to be statistically significant meaning that the “time spent” to register has clearly decreased with the creation of the GUCE. [Note – this is driven by both a decrease in the number of visits and a reduction in the average duration of visits].

Table 11: “Time spent” to register a business (time in hours)

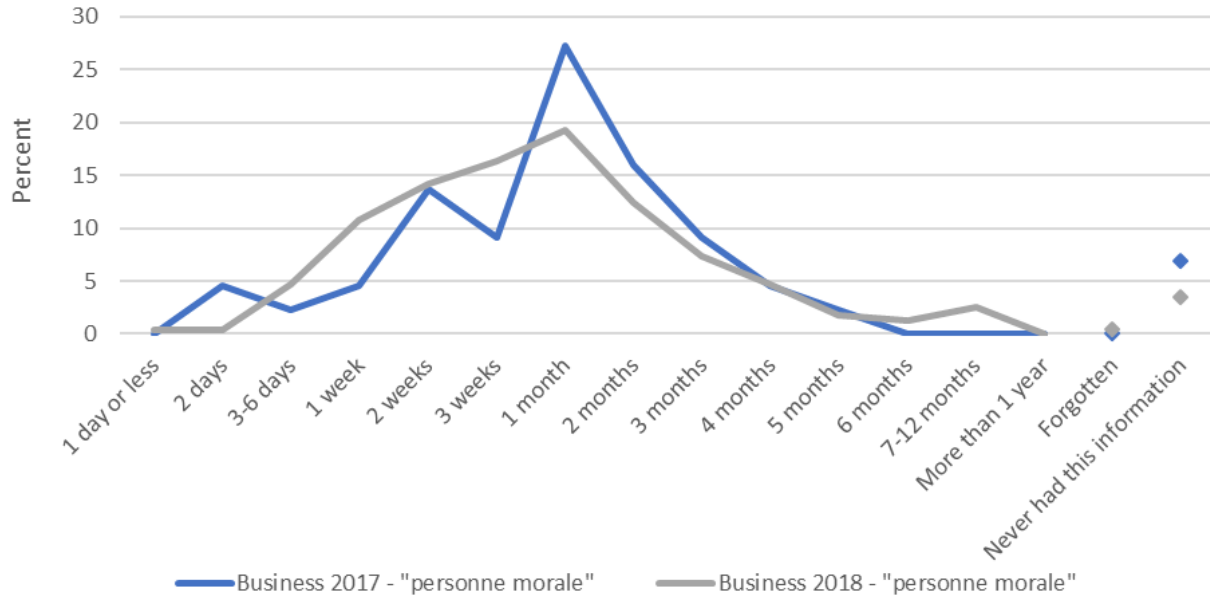
	Business 2017 - personne morale	Business 2018 - personne morale	Business 2017 - personne physique	Business 2018 - personne physique
Average	7.3	8.3	19.1	5.9
Median	6.0	4.0	8.0	3.0
T-test result	No significant difference		“Time spent” smaller in 2018 p-value = 0.00	

These results will be further tested later in the report. Regressions will be run and the true impact of the GUCE on the “time spent” to register a business will be estimated, taking into account all other external factors such as the use of an intermediary.

“Time taken” to register a business

In addition to the time personally spent visiting the different institutions, it is important to consider the time taken from start to finish as administration processes are often time-consuming – and reducing the time taken to start a business was one of the key objectives of the GUCE (linked to the [World Bank Doing Business](#) indicator on Starting a Business). The time that the delivery of a document can take is related to its processing, during which several obstacles can arise. For example, to acquire the tax number, the delegate of the DGI in Lubumbashi or, in 2018, the head of the GUCE office must send an email with the business's information to the DGI in Kinshasa, which produces a tax number. This may take a long time because of the distance between the two cities and ineffective communication and follow-up. One interviewee explained that *“it is the national identification number and tax number that are lying around but the GUCE is still fast [apart from that].”* At times, a delay in one step can cause a snowball effect and a pause in the processing of a separate document, as one manager explained: *“I missed or lost the steps because of waiting for documents that took a long time to obtain.”* Still others had more positive feedback: *“Time was not difficult. The registration happened in less time than I expected. In less than a month I already had all the documents. Before the introduction of the GUCE, the process took a long time because the agents were not equipped, the system was not computerized, and the offices were not centralized.”*

Figure 15: Time taken to register a business by year of registration – “*personne morale*”

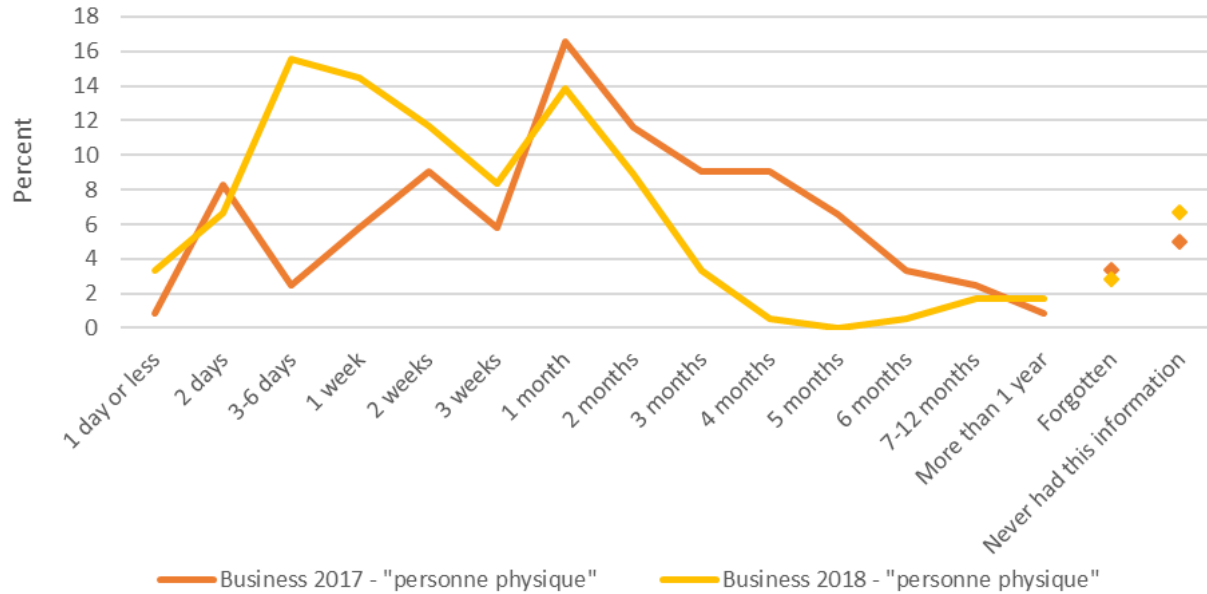


T-test results : No significant differences

Looking at the quantitative data collected, the time taken to go through the whole procedure varies depending on the type of business considered. The most common answer from *personne morale* managers is 1 month for both years of registration considered: 27% and 19% of businesses registered in 2017 and in 2018, respectively (figure 15). While the difference could appear to be relevant, the overall distributions are rather similar. A t-test supports the statement that there is no significant difference in terms of time taken to register before and after the creation of the GUCE for such business. Further statistical tests will be presented later in this report, detailing results of regressions and the potential true impact of the creation of the GUCE on the time taken, including controls and other variables.

The same variable shows different results when the *personne physique* businesses are considered. As the figure 16 shows, the most common answer on the time taken to register is 1 month for such businesses registered in 2017 while it is 3-6 days for the same type of businesses registered in 2018 through the GUCE. Moreover, as opposed to the above result, a t-test performed confirms that the time taken, as reported by the business owners interviewed, is statistically smaller when the business registered in 2018 through the new procedure in the GUCE. As explained before, this result will be further analyzed in running regressions which will include additional controls.

Figure 16: Time taken to register a business by year of registration – “personne physique”



T-test results : time taken 2017 > time taken 2018 (p-value = 0.00)

Concerning these delays, an interviewee captured what many others had said by explaining that “there were informal payments or ‘motivation’ [that had to be paid]. When there was a blockage, we had to give a bribe to speed up the process.” In other cases, some documents were awaiting the approval of the head of the institution. Respondent testimonies, overall, show that the national identification number, tax number and INSS number were the most time-consuming documents to produce.

Data collected from intermediaries seems to indicate similar trend of a shorter time taken to register businesses after the creation of the GUCE, though with different margins. Table 12 details the results of data collected on this subject. According to their recollection, in 2017 the most common answer given by intermediaries for registration of *personne morale* businesses is 1 month, and 1-2 months for *personne physique* businesses. On the other hand, after the introduction of the GUCE in 2018, the most common answer indicates that the registration time decreased: 2 weeks and 1 week for *personne morale* and *personne physique* businesses, respectively. Therefore, registration time decreased in 2018 according to intermediaries as well. Note that they can be assumed to be better informed persons as opposed to individual business owners. This trend is also confirmed by GUCE staff who explicated the advantage of digitalization to reduce registration time: “The software facilitates the registration process. The system allows interconnection with the external service. It's faster to find files with computers, it saves time.”.

Table 12: Time taken for registering a business according to intermediaries

	Business 2017 - personne morale	Business 2018 - personne morale	Business 2017 - personne physique	Business 2018 - personne physique
Most common answer	1 month	2 weeks	1-2 months	1 week
Chi2-test result⁶	Time taken in 2018 smaller p-value = 0.02		Time taken in 2018 smaller p-value = 0.02	

⁶ The structure of the intermediary data requires a Chi-square test to confirm any statistical relationship between these two variables.

Perception of the registration procedure and the GUCE

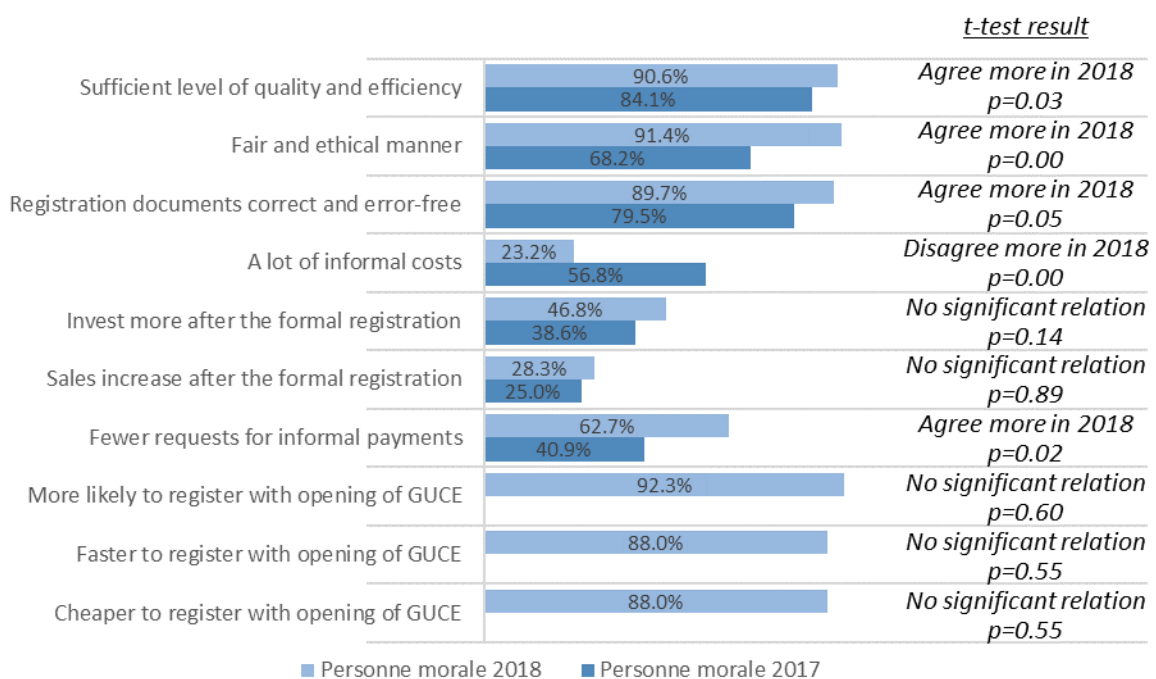
While actual data on time and cost of registration seem to indicate a potential impact of the GUCE, it is important to report on how people perceive such a ‘single window’ system. In one of the last modules of the surveys, it was asked to respondents to say whether they agree or not with several statements. The possible answer options were a Likert scale with 7 levels, gradually going from ‘Totally agree’ to ‘Totally disagree’.

The figures below present, for better readability, the percentages of respondents who agree with the statement – compiling together the following responses: ‘Totally agree’, ‘Agree’ and ‘Somewhat agree’. The t-test results, however, take into account all possible responses, trying to investigate whether the GUCE may have had an impact on the perception of business representatives regarding the registration process.

The figure 17 shows that responses from *personne morale* businesses show some significant differences depending on whether the business was registered before the creation of the GUCE or after. Although already high, the share of business owners who agree with saying that the level of quality and efficiency of the registration procedure was sufficient increases if the business was registered in 2018: it goes from 84% who agree with that statement in 2017 to 91% who agree in 2018. The margin of change is much higher (and also statistically significant) when respondents are asked about the fairness and ethical manner of the procedure they experienced. For businesses registered in 2017, it shows that 68% agree to say the process was fair and ethic while the same percentage is 91% for businesses registered in 2018. Similar trends are observed for correctness of registration documents and fewer requests for informal payments. They are, respectively, 10% and 22% more to agree with these statements when the business was registered in 2018. All other statements do not show statistically significant results except the one regarding the amount of informal costs. In fact, when asked whether there were a lot of informal costs during the registration, the *personne morale* business owners agree in a majority, 57%, when they registered in 2017. By comparison, the percentage of such business owners who registered their business in 2018 is 23%, to agree with that statement.

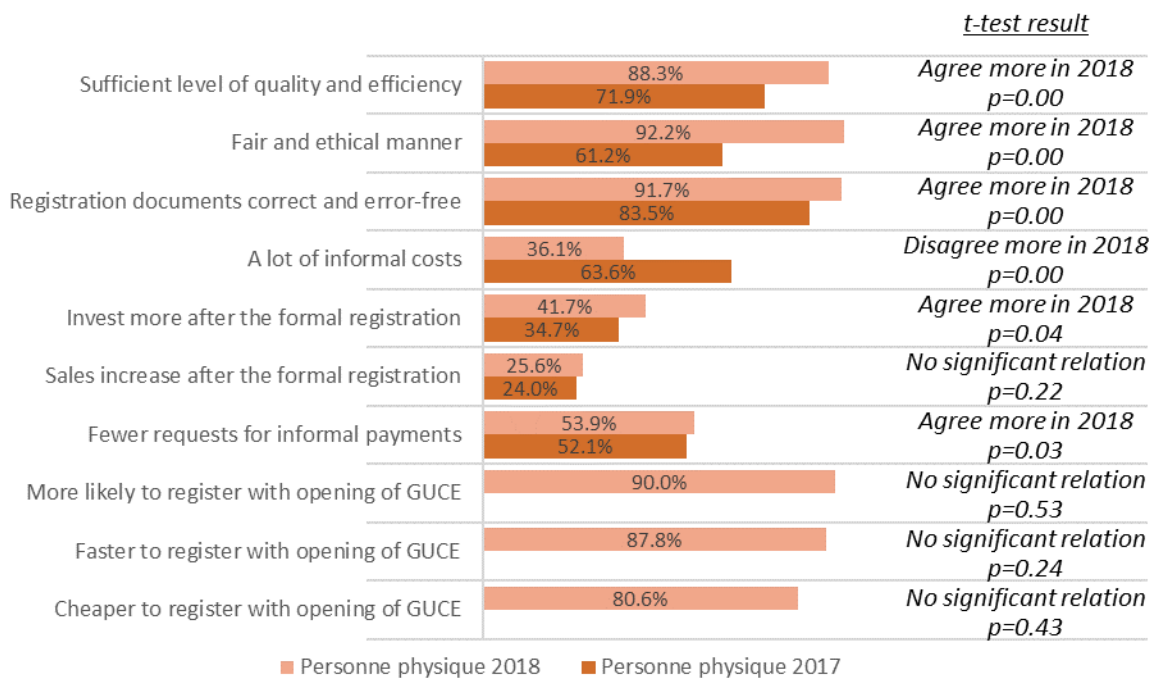
Overall, results in Figure 17 indicate that there are several statistically significant differences. Thus, for *personne morale* businesses, the creation of the GUCE had some real impact on the perception of the registration procedure.

Figure 17: Percentage of business owners who agree with the statement regarding the registration procedure – “*personne morale*”



The figure 18 presents similar results for the other type of business, *personne physique*. It shows the same trends of results with the same significant difference on the same statements. The only statement where another significant difference appears is the one regarding the investment made following the formal registration. In fact, the statistic test shows some small significance and would indicate that the small margin observed between 2017 and 2018 *personne physique* businesses is statistically confirmed. For 2017 *personne physique* business owners, 35% agree with the statement that they invest more after the formal registration is completed. For 2018 registered *personne physique* businesses, 42% agree.

Figure 18: Percentage of business owners who agree with the statement regarding the registration procedure – “*personne physique*”



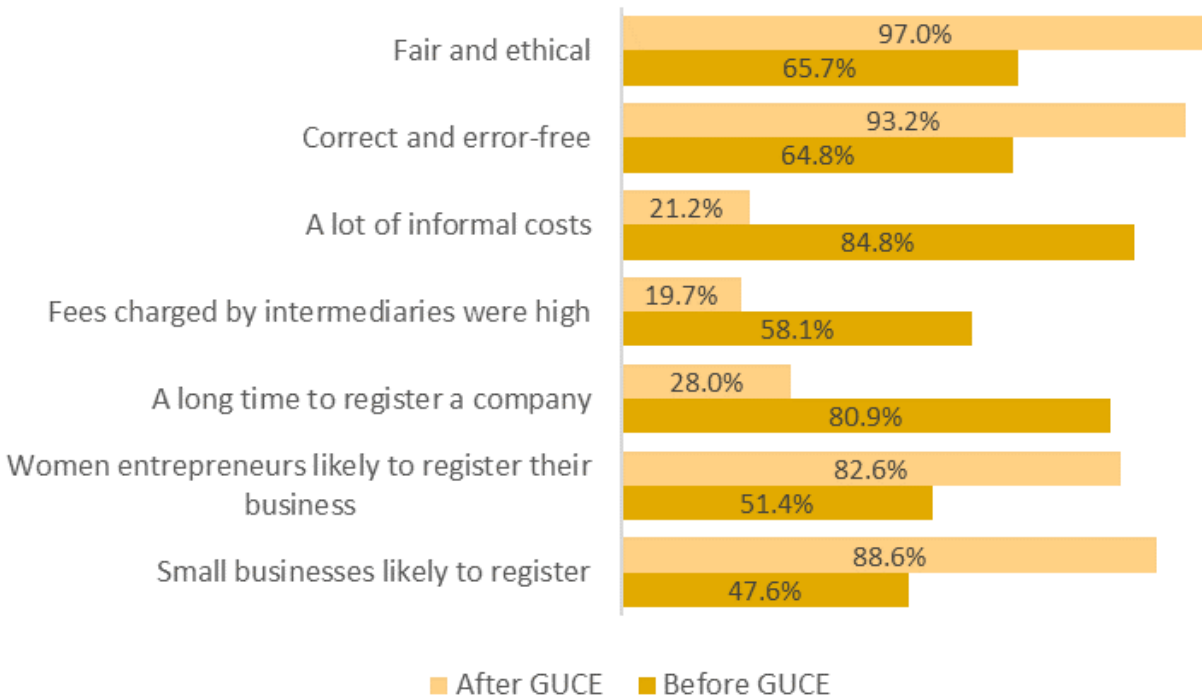
Moreover, no matter the type of business considered, the previously observed results appear to indicate a reduction of the cost, the time spent, and the time taken, thanks to the creation of the GUCE. In fact, the 3 statements where the GUCE is clearly mentioned (the 3 last ones in both figures), show that at the time of interview, most businesses agree the registration of a business is faster and cheaper with the opening of the GUCE (Note – these questions only asked to 2018 businesses). These results mean the creation of the GUCE potentially has an impact on the number of businesses that officially register and thus decrease the share of informal economy which remain a scourge for the overall country economy.

Data collected from intermediaries also included a similar set of questions with statements to agree or disagree with. As per the figure 19, the trends of results also seem to reflect an impact of the GUCE. Intermediaries interviewed are 31% more likely to agree with the fact that, in general, the registration procedures are fair and ethical after the GUCE was opened. Similarly, they are 28% more likely to agree that registrations are correct and error-free with the post-GUCE registration system. They are also much less likely to declare they agree that there are a lot of informal costs after the GUCE creation as opposed to before: 21% after the GUCE opened against 85% before the GUCE was created. Moreover, they are less likely to agree with the statement that it takes a long time to register a company through the GUCE compare to when the old system was still in place.

Even though all these results cannot be confirmed statistically due to the small sample size, there are 3 more statements which may appear interesting. According to the intermediaries interviewed, the fees they charged to businesses decreased since the creation of the GUCE: 58% agreed to say the intermediary fees were high before the GUCE existed while only 20% agreed so when considering the post-GUCE creation period. Finally, intermediaries seem to declare

that women owned businesses and small businesses are more likely to register since the creation of GUCE. As previously mentioned, statistical tests are more complicated because it is often the same intermediaries responding both, hence it is important to restrain from drawing conclusion out of these results – even though they provide evidence with regards to the evaluation questions.

Figure 19: Percentage of intermediaries who agree with the statement regarding the registration procedure



Note: Statistical tests do not give any accurate results due to the small sample size of the intermediary sample

Another piece of information which was provided by the GUCE staff concerns the location of the GUCE itself. In fact, GUCE staff interviewed mention that its “access is not easy in terms of location because of the black market also nearby”. Some business owners experienced robbery on their way to the GUCE with the necessary cash to register their business.

Impact assessment of the creation of the GUCE in Lubumbashi

The two main research questions of this evaluation were key in designing the research approach and the survey instruments:

1. What has been the impact of GUCE on **costs**⁷ incurred by businesses related to undertaking the registration process?
2. What has been the impact of GUCE on **time**⁸ taken by businesses related to undertaking the registration process?

To answer these evaluation questions, Forcier ran several multivariate regression models. These models all aimed at comparing two groups, one which “received the treatment” and one which did not. In this study, the two groups are defined by the year of registration; we then compared businesses registered in 2017 before the creation of the GUCE

⁷ Costs considered are formal fees, fees for intermediaries, and informal payments.

⁸ Time taken is define as the time taken to fully complete the registration of a business

with businesses registered in 2018 through the newly established GUCE. In other words, the models will test whether the registration process in terms of costs or time required of businesses was impacted by the creation of the GUCE.

Thus, the multivariate regression models can be defined as follows:

$$Y_i = \alpha + \beta_T T_i + \beta_X X_i + \varepsilon_i$$

Where Y_i is the dependent variable, differing on the evaluation question, by entrepreneur i . T_i a variable that takes the value 1 if the business registered through the GUCE and 0 otherwise. X_i represents the other independent variables included in the model. The constant is α , the coefficients are β_T , and β_X , and ε_i is a random unobserved "error" term which contains all determinants of Y_i which the model omits. In sum:

- α = constant term when applicable
- β_T = impact of the creation of the GUCE on the dependent variable (cost/time of registration)
- β_X = effect of the variable X on the dependent variable (cost/time of registration)
- ε_i = random unobserved "error" for business i

The variables X control for some additional factors that could also have an impact on the cost/time of the registration. These include the business type (*personne physique* vs *personne morale*), whether the business used the service of an intermediary to register, the gender of the entrepreneur, proxies on the business size such as the number of employees, the income of the business, and the sector of activity of the business.

As mentioned above, Forcier runs several types of regressions. More precisely, two main models are to be thoroughly described:

1. Ordered Logistic Regression → Sub-type of logistic regression used when the dependent variable is ordinal, that is when the dependent variable has a meaningful order and more than two categories. This is the case in this study since during questionnaire design it was decided that the dependent variables such as time and cost would have answer options that are grouped ranges instead of a numeric answer, e.g. if a respondent said registration cost \$4, the enumerator would select "\$0 to \$5" instead of entering "4". Ordered logistic regression coefficient results are presented as odds ratios.
2. Ordinary Least Squares (OLS) Regression → Classical linear regression model. In using this type of regression estimates, the dependent variables are treated as continuous variables as opposed to ordinal variables as is done in ordered logistic regression. This is obviously a limitation as this omits the main structure of the data collected and ignore the brackets used to collect monetary data for instance.

In the results presented below, tables detail the results of four models. Two ordered logistic regressions models with odds ratios presented: one with controls and another one without controls. The difference of including controls or not lies in the sample considered for the regression. Due to the field challenges in obtaining income information, there is a significant share of missing values for the corresponding variables. With that said, the size of the regression sample which can be used is significantly smaller in cases where business size proxies are included. Thus, it is a trade-off between sample size and controls.

Furthermore, despite the limitation of using OLS models, two such regressions are also presented. The first one treats the ordinal categorical variables as continuous using the underlying numerical values associated with each bracket (e.g. the category "\$0 to \$5" is 1, "\$6 to 10" is 2, etc.). The second OLS model presented uses transformed categorical variables into actual continuous variables in which 'all categories' underlying numeric values have been replaced by the middle of the bracket (e.g. "\$0 to \$5" was replaced with \$2.5, "\$6 to 10" with \$7.5, etc.).

Question 1: Impact of the GUCE on the costs

To answer the first research question on the impact of the GUCE on the cost of registering a business, the dependent variable considered is the total cost of the registration of the business, as reported by business managers interviewed, including formal, informal and intermediary costs (“*Quel a été le coût total de l’enregistrement de votre entreprise, y compris tous les frais formels, informels et intermédiaires que vous avez payés, en \$?*”).

As the table 13 below indicates, all regressions models show significant impact of the creation of the GUCE on the total cost paid. However, it is to be noted that the last regression model, OLS with transformed data gives estimates that are less significant as it is statistically significant at 10% level but not at 5% level. The other 3 regressions presented provide estimates at 1% level which suggest that the creation of the GUCE is linked with a decrease in the total cost for registering a business.

Results for both ordered logistic models are shown in terms of odds ratios. For the first regression, the coefficient associated with the treatment variable is 0.196. This is the proportional odds ratio of higher business registration costs for a one unit increase in the treatment variable, meaning going from 0=no GUCE to 1=GUCE, given that all other variables in the model are constant. Thus, the existence of GUCE is associated with 0.196 times lower odds that a business will face a high registration cost compared to low registration costs given the other variables are constant in the model. In other words, it means that registering through the GUCE increased the chances for the entrepreneur to have paid less for the whole registration procedure. The magnitude of the estimated impact of GUCE on lowering business registration is smaller if proxies of the size of the business are omitted: the odds ratio for the second ordered logistic regression is 0.288, indicating that businesses were 0.288 times less likely to face high registration costs. In that second regression model the size of the sample is substantially larger (N=504) and the coefficients estimates remain statistically significant. Given the limited values of the coefficients associated with the control variables (in terms of effect size), the trade-off is not worth and controls are purposely excluded from the other models – implying a bigger sample size.

Finally, the OLS categorical estimates indicate a similar trend of results, except that the coefficients reported are not odds ratios. The sign of an OLS regression coefficient tells whether there is a positive or negative correlation between each independent variable and the dependent variable. With this type of regression model, a positive coefficient indicates that as the value of the independent variable increases, the mean of the dependent variable also tends to increase. In contrast, a negative coefficient suggests that as the independent variable increases, the dependent variable tends to decrease or vice versa. Thus, as shown in the below table, the mean of the cost for registering a business decreases by -1,983 levels with the creation of the GUCE. When the dependent variable has been transformed into continuous, the creation of the GUCE seems to be associated with a \$123.5 decrease, although the estimate is significant at 5% only⁹.

The limitation of using an OLS model as opposed to an Ordered Logit has been explained earlier. Nevertheless, it is important to note that the trend of the impact estimated remains the same for all three models: the creation of the GUCE is associated with decreases in the total cost for registering a business.

Table 13: Regressions on the total cost for registering a business (cost in dollars for continuous variable)

<u>Dependent variable</u> =	Ordered Logit 1	Ordered Logit 2	OLS	OLS
Total cost for registering a business	(controls)	(no controls)	categorical	continuous
<u>Treatment variable</u> =	0.196***	0.288***	-1.983***	-123.5*
Year of registration: 2018 (GUCE)	(-4.76)	(-6.32)	(-4.34)	(-2.40)
Business type: "Personne physique"	0.277***	0.300***	-2.169***	-199.9***
	(-3.69)	(-6.15)	(-4.57)	(-3.73)
Use of an intermediary: Yes	2.111**	2.304***	1.702***	145.0**
	(2.66)	(4.92)	(4.08)	(3.09)

⁹ In looking at the exact p-value, the significance level is even 2%

Gender of the business holder: Male	0.814 (-0.64)	0.811 (-1.02)	-0.168 (-0.33)	23.63 (0.41)
Number of employees	1.002 (0.17)	Not included	Not included	Not included
Last Annual income	1.034 (0.81)	Not included	Not included	Not included
Last Month income	0.999 (-0.03)	Not included	Not included	Not included
Average Daily income	1.085 (1.45)	Not included	Not included	Not included
Constant	Not applicable	Not applicable	10.55*** (5.46)	471.1* (2.16)
N	210	504	504	504

*Note: Other control always included=business sector; t statistics in parentheses; * p<0.05 ** p<0.01 *** p<0.001*

In addition, some other variables significantly impact the total cost for registering a business. Everything else held constant, a *personne physique* business as compared to a *personne morale* business paid less to register. As the coefficients reported in the table 11 indicate: OLS coefficient estimate equals to -2.169 and odds ratios equal to 0.277 and 0.300, respectively in Ordered Logit 1 and Ordered Logit 2. When the dependent variable is transformed, the coefficient indicates that the cost for registering a *personne physique* business is \$200 less, the coefficient being estimated at 1% level. The cost reduction effect of the GUCE is therefore dominated by the *personne physique* businesses in the data – this may in part simply reflect that the low 2017 *personne morale* sample size has made it harder to pick up an effect for this subgroup.

Moreover, as some could have expected, the use of an intermediary significantly increases the price for registering a business, all other variables being constant. Nevertheless, the intermediary costs variations are not captured in the above results. Ideally, a net cost variable would ignore the additional costs bared by some business owners who chose to use the services of an intermediary. The structure of the data collected, however, limits calculations. Creating a net cost variable would imply transforming two variables from ordinal to continuous before calculating a difference – meaning making strong assumptions and inserting significant bias into the analysis¹⁰.

Hence, looking at the intermediary costs separately is more accurate and allows for a better understanding of what is indeed driving the total costs of registration for a business. The table 14 details the results obtained when running regressions on intermediary cost. It shows that a lot of the variation of the intermediary cost is captured by the type of business considered. In fact, it is the only variables where coefficients estimated are significant. On the model that respect the most the data structure (ordered logit), *personne physique* businesses were 0.388 times less likely to face high intermediary costs. With that said, in the total cost registration previously detailed, the impact of the business type on the total cost paid for registration is over-estimated as some additional intermediary cost effect is captured by the same variable. In other words, if the intermediary cost could be included in the main total cost model (if a net cost variable could be created), some of the coefficient of business type would be attributed to an intermediary cost coefficient.

Table 14: Regressions on the intermediary cost for registering a business (cost in dollars for continuous variable)

<u>Dependent variable=</u>	Ordered Logit	OLS	OLS
Intermediary cost for registering a business	(no controls)	categorical	continuous

¹⁰ Note the effects when making these transformations are an intermediary cost reduction of \$9 and a net cost reduction of \$114.

<i>Treatment variable=</i>	0.747	-0.376	-13.21
Year of registration: 2018 (GUCE)	(-1.11)	(-0.65)	(-0.35)
Business type: "Personne physique"	0.388**	-1.770**	-86.46*
	(-3.26)	(-2.90)	(-2.21)
Gender of the business holder: Male	1.339	0.488	29.69
	(1.05)	(0.81)	(0.77)
Constant	Not applicable	0.888	-16.48
		(0.23)	(-0.07)
N	248	248	248

*Note: Other control always included=business sector; t statistics in parentheses; * p<0.05 ** p<0.01 *** p<0.001*

Question 2: Impact of the GUCE on the time of business registration

To answer the second research question on the impact of the GUCE on the registration time, two dependent variables need to be considered. One is the respondent-assessed total “time taken” to complete the registration of their business (“Combien de temps le processus d'enregistrement a-t-il pris (du début jusqu'à la fin)?”) and the other one is the “time spent” by the business owner personally to register (the number duration of visits to governmental institutions or the GUCE and the average duration of these visits – two separate questions in the enterprise survey).

Impact of the GUCE on the “time spent” to register a business

The table below presents the estimates for the impact of the independent variables considered on the time spent for registering a business. As previously explained, the time spent variable is continuous based on two initially ordinal variables which have been transformed into continuous since the list of responses possible allowed to do so.

In this case, since the dependent variable is continuous, OLS regressions are sufficient to obtain accurate estimates. The only variation presented in the table 15 is that one OLS model includes control variables (but has a smaller sample) while the other does not (but has a bigger sample). Both regressions considered show a significant impact of the creation of the GUCE on the time spent by the business owner on the registration procedure. Thus, in reading the coefficient estimate from the second OLS model which includes controls, it shows that the creation of the GUCE decreased by 5 hours and 36 minutes the time spent by the entrepreneur to register their business. All other variables do not show any significant results, meaning that only the creation of the GUCE itself can be considered to reduce the time personally spent by business managers in line the reforms in process brought about by the new system for business registration.

Table 15: Regressions on the time spent by business owners for registering a business (time in hours)

<i>Dependent variable=</i>	OLS controls	OLS no controls
Time spent for registering a business		
<i>Treatment variable=</i>	-9.530***	-5.601***
Year of registration: 2018 (GUCE)	(-4.26)	(-4.07)
Business type: "Personne physique"	3.074	0.292
	(1.33)	(0.21)
Use of an intermediary: Yes	-2.918	-1.573
	(-1.45)	(-1.24)
Gender of the business holder: Male	0.626	0.245
	(0.26)	(0.16)
Number of employees	0.0209	Not included
	(0.19)	

Last Annual income	-0.119 (-0.38)	Not included
Last Month income	0.326 (0.87)	Not included
Average Daily income	-0.313 (-0.86)	Not included
Constant	19.13* (2.42)	11.94 (1.94)
N	166	388

Notes: Entrepreneurs who had no role in the process of registration are excluded from this regression as well as outliers given the potential for large numbers with the double transformation.

*Other control always included=business sector; t statistics in parentheses; * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$.*

Impact of the GUCE on the “time taken” to register a business

The table below presents the estimates for the impact of the independent variables considered on the time taken for registering a business. In this case, the time variable considered is ordinal and represents the duration of the entire registration procedure. In the case of time as the dependent variable, all types of regression models considered show a significant impact of the creation of the GUCE on reducing the time taken for business registration. The OLS continuous model also appears to be consistent in these regression models, likely because the range for each answer option is rather narrow for the time variable.

Thus, the creation of the GUCE is associated with reductions in the time needed to register a business. The corresponding odds ratios are 0.131 and 0.391, respectively for Ordered Logit 1 and 2. It means that the odd of taking a long time to register compared to taking a short time is smaller by a factor 0.131 with the existence of GUCE. As for the first research question, if controls are not included (and the sample size increased), the magnitude of the impact of the GUCE is smaller with the odds of taking a long time to register compare to taking a short time reducing by a factor 0.391. The coefficient estimates obtained from the OLS models are also significant and show a similar trend. The OLS categorical indicates that the creation of the GUCE reduced by 1.248 levels of the variable corresponding to the time needed to register a business. More practically, the OLS continuous indicates that the creation of the GUCE reduced the time for registering a business by 19 days (this estimate is significant at 1% level).

Table 16: Regressions on the time taken for registering a business

<i>Dependent variable=</i> Time taken for registering a business	Ordered Logit 1 (controls)	Ordered Logit 2 (no controls)	OLS categorical	OLS continuous
<i>Treatment variable=</i> Year of registration: 2018 (GUCE)	0.131*** (-5.59)	0.391*** (-5.10)	-1.248*** (-4.76)	-19.33** (-3.16)
Business type: "Personne physique"	0.451* (-2.41)	0.544*** (-3.35)	-0.814** (-2.99)	-4.404 (-0.70)
Use of an intermediary: Yes	1.280 (0.89)	1.307 (1.62)	0.328 (1.36)	-3.181 (-0.57)
Gender of the business holder: Male	1.767 (1.73)	1.270 (1.19)	0.217 (0.74)	-2.631 (-0.39)
Number of employees	0.986 (-1.11)	Not included	Not included	Not included
Last Annual income	1.022	Not included	Not included	Not included

	(0.57)			
	1.142*			
Last Month income	(2.55)	Not included	Not included	Not included
	0.834***			
Average Daily income	(-3.34)	Not included	Not included	Not included
			7.071***	67.83*
Constant	Not applicable	Not applicable	(6.19)	(2.55)
N	212	535	535	535

*Note: Other control always included=business sector; t statistics in parentheses; * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$*

The type of business also seems to have an impact on the time needed to register a business. More precisely, a *personne physique* business as opposed to a *personne morale* business is likely to take less time to go through the registration process. However, this result is not significant in the case of the OLS continuous regression model and is only strongly significant in the case of the Ordered Logit 2 (without controls). The reduction in the time taken to register a business is therefore again predominated by *personne physique* businesses, with little effect for *personne morale* businesses. However, again this may be because of the low 2017 sample size for *personne morale* businesses, making it difficult to pick up any effect.

Interestingly, the fact that the business may use an intermediary to take care of the registration does not significantly impact the time taken to register the business.

6. Conclusion

The objective of creating the GUCE was to streamline procedures in order to reduce the time and cost of business registration. In addition, some could argue it can be expected to improve the overall private sector by reducing the share of informal businesses for instance. Despite the methodological limitations, this evaluation has shown that opening a ‘single-window’ registration desk can have concrete impact on how private sector interact with the state. Though the gender aspect was considered in this study, it is to be noted that the gender of the business owner does not impact the registration procedure. The scope of this study does not allow for in-depth analysis with regards to gender and social inclusion, however further research on the GUCE will examine these questions and will be shaped by the initial findings of this study.

When registering, businesses must pay to ensure the whole registration is well completed and all registration documents well received. Significant improvements in the quality of registration were observed since the creation of the GUCE. Businesses register with an average of 0.3 more processes completed (out of 6 measured in total for *personne morale* and 5 for *personne physique* businesses). This was mainly driven by a 9% increase in the proportion of firms obtaining their IDNAT, a 22% increase in the proportion of firms getting their INSS registration number, and a 28% increase in the proportion of firms getting their INPP number – following the opening of the GUCE. Intermediaries confirm that improvement. In fact, under the new GUCE system compared to the old system, they are 28% more to agree or strongly agree that registrations are correct and without errors.

Significant findings on reduced time and cost of registering a business were also found. The data collected show that the cost bourn by companies decreased with the creation of the GUCE by an estimated \$123.50. This corresponds to an estimated \$114 reduction in the direct net cost of registering a business while the intermediary cost decreased by an estimated \$9. In addition, the time taken to register has also decreased by 19 days since the new single window system has been implemented. In addition, business owners spent less time personally to visit the governmental institutions making it easier to go through the whole procedure. More specifically, regressions performed estimate a 5 hours and 36 minutes decrease of the time spent by business owners to register their businesses through the new system.

While it is challenging to give an actual monetary value to reduced time of registering a business, some could easily argue that “time is money”. More pragmatically, the process being easier after the opening of the GUCE, it encourages business owners to register and reduces the share of informal businesses in the economy. Significant improvements to trust in the Congolese state and reduction in corruption practices can be seen throughout this study. Since the implementation of the single window, there are 31% more of entrepreneurs who believe their registration was carried out in a just and ethical manner by Government. Moreover, findings suggest that 84% of entrepreneurs registering in 2018 agreed or strongly agreed that the GUCE had made them more likely to register their business. A finding mirrored in the perceptions of intermediaries.

Having a ‘single-window’ registration procedure also gives less room for informal costs. As detailed in this study, for almost every registration step, no matter the type of business considered, informal costs are smaller for businesses registered in 2018 through the GUCE compare to businesses registered prior the creation of the GUCE. In the old system, a business owner interviewed explained: “*there were informal payments or ‘motivation’ [that had to be paid]. When there was a blockage, we had to give a bribe to speed up the process.*” While they seem to be less common in the GUCE registration process, informal costs still exist and the ‘bribing’ culture is still to be undermined. Some entrepreneurs and intermediaries paid these incentives in 2018 without agents having even requested them, however, out of habit. Indeed, a manager explained that “*normally [the agents] do not ask [for a bribe], we are the ones who give things to go fast, speed up the process and every time you come for a registration, you have to give something.*”. Nevertheless, the study shows positive feedbacks on the matter. A significant finding to underline is a 32% reduction in the propensity to need to pay a side payment for processes required for business registration according to business owners. This trend is confirmed by intermediaries with an estimated 64% less who agree or strongly agree that there are lots of side payments to pay throughout the business registration procedure, in the new GUCE system compared to the pre-GUCE system.

Finally, the GUCE is well received by the population and business owners as well as intermediaries seem to confirm its relative efficiency compare to the old system. While some of the registration steps are still not efficiently integrated in the new system, the new single window model is appreciated by most – one interviewee explained that *"it is the national identification number and tax number that are lying around but the GUCE is still fast [apart from that]."* Cost and time saving is significant and positive feedback could be gathered from the ground: *"Time was not difficult. The registration happened in less time than I expected. In less than a month I already had all the documents. Before the introduction of the GUCE, the process took a long time because the agents were not equipped, the system was not computerized, and the offices were not centralized."* The perception of significant improvement is also felt at the GUCE staff level. They are more efficient in doing their jobs and the whole registration procedure has become better in different aspects, though capacity of the staff may be limited as businesses seek more and more to register as a GUCE staff interviewed explains: *"The GUCE has improved and facilitated business creation, just look at the number of new registration. There is also transparency and less hassle. It is necessary to improve working conditions, assess the volume of work and see if this corresponds to the number of staff."*

ANNEXES¹¹

- **Businesses questionnaire**



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- **Intermediaries questionnaire**



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- **Guides for qualitative interviews**



Essor-GUCE-Guides
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¹¹ The annexes can only be opened in the Word version of the report