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Creating comparative advantage: Identifying information and technology constraints facing SMEs in supplying large firms in Rwanda

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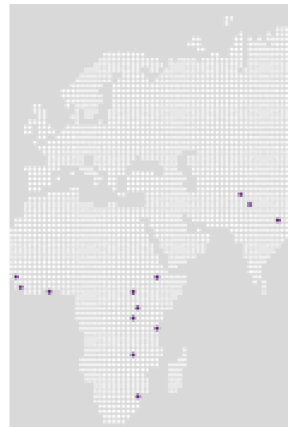


Creating comparative advantage

Identifying information and technology constraints facing SMEs in supplying large firms in Rwanda

In brief

- Large buyers and multinational firms in Rwanda frequently rely on imported goods for their input needs.
- In this study we carried out a survey of buyers and suppliers in Kigali to explore the barriers to the formation of more local buyer-supplier linkages with a focus on the role of information.
- We identify a list of constraints that are shared by firms on one or on both sides including barriers related to prices, quality but also lack of information about the other market side.
- We categorize these barriers as structural requiring larger-scale policy interventions and barriers that can be mitigated through lighter interventions. This includes overcoming information frictions.
- Firms state high degree of openness to receive and share business information. Based on this, we develop a list of potential interventions to foster buyer-suppler linkages.

This project was funded by IGC Rwanda.

Executive Summary

Large buyers and multinational firms in Rwanda frequently rely on imported goods for their input needs. In an RDB-IGC partnership we explore the barriers to the formation of more local buyer-supplier linkages, with the ultimate objective of launching a joint intervention that reduces such constraints. Our focus of interest is the role that information plays in constraining buyer-supplier linkages. For that purpose, we have carried out a survey of a sample of both large buyers and SME suppliers. We reached 189 firms in Kigali, including 46 large buyers. The respondents are distributed across different sectors, including agriculture, agroprocessing, handcrafts, textiles, manufacturing, hotels, and other services. Our sample is fairly representative of formal firms in Kigali, closely mirroring its size distribution.

According to our survey, the most significant challenges for large buyers in establishing local buyer-seller connections are: (1) high prices of domestic suppliers, (2) lack of domestic suppliers and (3) low or uncertain quality. The largest barriers for SME suppliers are (1) difficulties competing on price, (2) lack of information on relevant buyers, (3) lacking a reputation and (4) difficulty competing on quality.

Some of the challenges to linkage formation above are structural and would require large-scale policy initiatives and governmental support, such as price and quality issues. Informational barriers, including the scarcity of information on buyers and suppliers and the lack of reputation of SMEs, however, may be easier to tackle and are listed among the largest challenges by firms. In our survey we explicitly ask firms about their interest in participating in a joint RDB-IGC program to develop buyer-supplier linkages and find overwhelmingly positive answers: more than 95% of firms would be “extremely interested” to participate in such program. More than 9 in 10 firms show very high willingness to both receive information about potential buyers-suppliers and share their own information. One potential intervention would be a digital platform that provides market participants with detailed and updated information on potential buyers and suppliers using official administrative data sources. Despite clear demand for it, 94% of our respondents don’t know of any such platform in Rwanda. This platform could potentially be customized for Rwanda. Finally, we discuss complementary interventions to tackle other constraints such as quality certification and financing.

1. Introduction

Improving the productivity of local suppliers and strengthening their access to larger buyers is a policy priority across the developing world. Indeed, fostering linkages between large firms and local suppliers can have significant positive effects on domestic suppliers through knowledge spillovers and quality improvements (Javorcik, 2004; Havranek and Irsova, 2011; Alfaro-Urena et al., 2022).

Studies have pointed to multiple constraints to domestic SMEs effectively supplying larger firms: access to finance, lack of capital, limited skills, limited scale of production, and poor product quality (Bassi et al., 2022; FSDU, 2018; Gereffi and Fernandez-Stark, 2016; Hjort et al., 2020; von Hagen and Alvarez, 2011). Less well understood is the role of information frictions in limiting firm linkages ultimately resulting in large buyers using international suppliers.

We propose to research the role of four distinct information constraints to supplier linkages in Rwanda, specifically:

I. Information frictions about the existence of and prices offered by SME suppliers (e.g., buyers might not be aware of the local suppliers due to search costs);
II. Information frictions about the product quality of SME suppliers (e.g., buyers might be unsure about the quality of local inputs due to lack of credible certification);
III. Information frictions about the reliability and management quality of SME suppliers (e.g., buyers might not trust local suppliers to deliver on time);
IV. Information frictions on the part of suppliers about the exact requirements of larger buyers (e.g., particular quality standards that need to be met), and the technologies needed to meet these requirements.

Large buyers and multinational firms in Rwanda frequently rely on imported goods for their input needs. In an RDB-IGC partnership we want to explore the barriers to the formation of more local buyer-supplier linkages, with the ultimate objective of launching a joint intervention that reduces such constraints. For that purpose, we have carried out a survey of a sample of both large buyers and SME suppliers.

We will use data from the RDB, such as exporter list, and firm surveys to understand which of the above four constraints are most pressing in Rwanda (and whether other constraints are relevant). This work will inform the design of policy relevant interventions to alleviate these constraints in partnership with local practitioners.

We are collaborating with the Supplier Development Project (SPD) Unit within the Rwanda Development Board, the investment promotion government agency in Rwanda. Through this collaboration, we will conduct research to inform their initiatives around enhancing linkages between SMEs and larger firms.

To our knowledge, this is the first study that utilises a unique source of detailed firm level administrative tax and certification data that has been made available to the research team, together with detailed supplier and buyer surveys to diagnose key informational frictions constraining supplier development. We extend the related literature by focusing on different types of information frictions on the part of both buyers and suppliers; Our proposed study will contribute to a growing literature on supplier access to global value chains by focusing on information asymmetries.

2. Survey Overview

The firms were sampled from the RDB Small and Medium Enterprise list (which originally has approximately 2500 firms), which we complement with large buyer and multinational firms from the RDB Buyer list (35 firms) and Dun and Bradstreet list of multinational affiliates in Rwanda (45 firms). The joint pooled list is restricted to (1) Kigali-based firms and (2) firms for which we have available contact information, leading us to a final list of approximately 900 firms. We tried to contact all these firms. Among them, we could not reach 40% of them due to wrong contact information or unavailability of the firms. A further 13% of them had closed, 6% could not provide appointments within the timeframe of our survey and 4% refused to participate. Finally, the total number of respondents of our survey is 189 firms, covering both large buyers and SME suppliers.

Groups of Firms. We classify firms in our sample into 3 categories: Large Buyers, SME business-to-business (B2B) Suppliers and SME business-to-consumer (B2C) Firms. *Large buyers* are defined as all those firms with purchases of inputs of other firms (B2B purchases) above 100 million Rwandan Francs (RWF) in the year 2022, regardless of who they sell to. *SME B2B Suppliers* are defined as firms that sell to other firms (and are not considered large buyers due to their smaller size). *SME B2C Firms* are defined as firms that sell only to final consumers (and are not considered large buyers because of their size). In our sample, we have a total of 46 Large Buyers, 75 SME B2B Suppliers and 68 SME B2C Firms (see Table 1).

Sectoral Classification of Firms: We also classify firms into the aggregate sectoral categories. As shown in Table 1 there is a total of 56 respondents in agriculture and agroprocessing, 40 in handcrafts, 33 in textile and leather products, 20 in manufacturing, 13 hotels, 13 firms operating in services sectors (predominantly ICT and logistics), 10 firms in mining and 4 firms in construction. All the sectors there is at least one large buyer represented and some cases significantly more, such as in agriculture and agroprocessing (14), hotels (12), manufacturing (9), services (4) and mining (4).

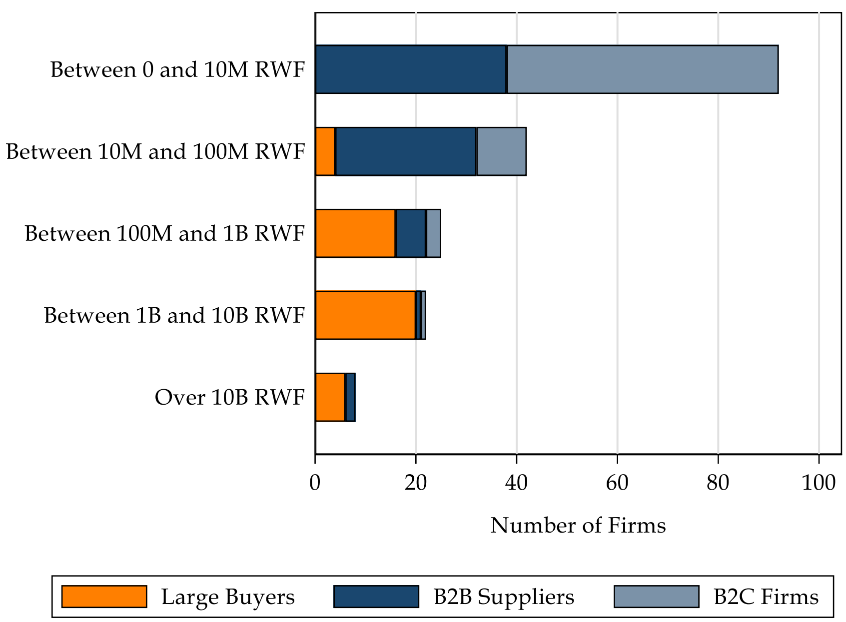
Size of the Respondents: 45% of the respondents had annual total revenues in 2022 below 10M RWF, 23% had total revenues between 10 and 100M, 13% between 100M and 1B, 12% between 1B and 10B and 4% total revenues above 10B (see Figure 1). Large buyers constitute the vast majority of the firms in the last two categories. SME B2C firms are predominantly found amongst the smallest categories. This is in line with our definitions of Large buyers and SME B2C firms.

Table 1. Classification of the Respondents by Aggregate Sector and Type of Firm

Aggregate Sector	(1) Large Buyers	(2) SME B2B Suppliers	(3) SME B2C Firms	Total
Agriculture and Agroprocessing	14	33	9	**56**
Handcrafts	1	13	26	**40**
Textiles and Leather Products	1	15	17	**33**
Manufacturing	9	5	6	**20**
Hotels	12	0	1	**13**
Services	4	3	6	**13**
Mining	4	6	0	**10**
Construction	1	0	3	**4**
Total	46	75	68	189

Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

Figure 1. Distribution of the Respondents by Annual Revenue and Type of Firm

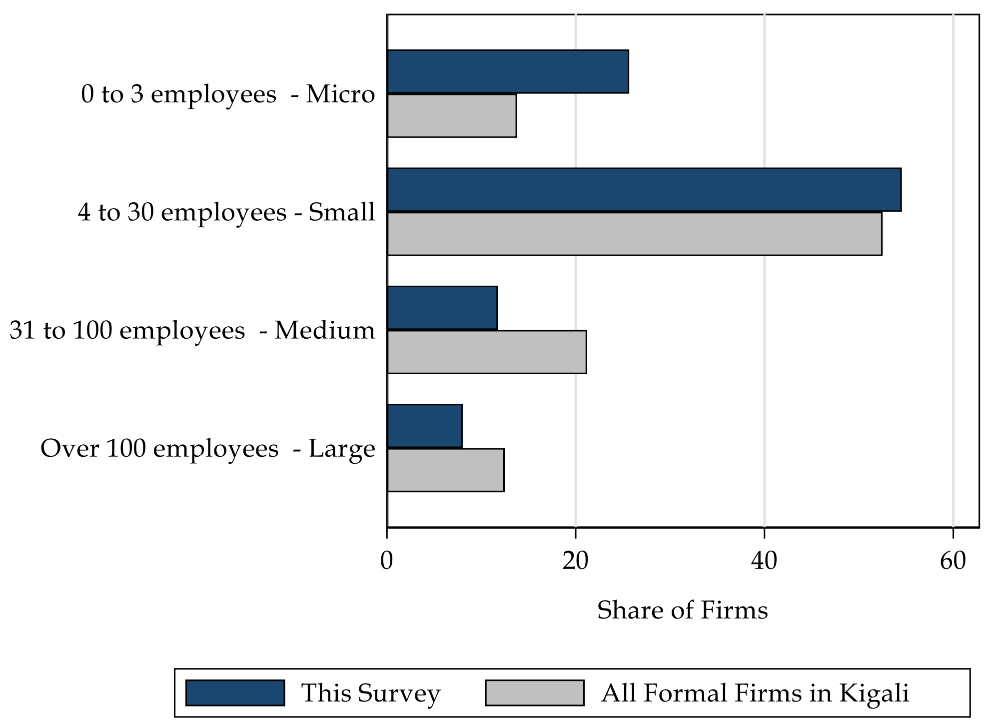


Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

Sample Representativeness: According to the Integrated Business Enterprise Surveys (IBES), there are approximately 17,000 formal businesses in Rwanda of which 69% are in Kigali, where our survey takes place. While there is a much higher number of informal businesses (only 8% of all companies are formally registered), they tend to be very small (more than 95% have 3 employees or less). Since large buyers seldom buy from informal firms, we focus in our study on formal businesses.

In order to analyze the representativeness of our sample **by size**, we classify our respondents into size bins according to the number of employees, following the IBES: micro companies (0-3 employees), small companies (4 to 30 employees), medium-sized companies (31 to 100 employees) and large companies (above 100 employees). In Figure 2, we compare the distribution by size according to such categories to those of all formal firms in Kigali in 2021 as published by the IBES in their 2019-2021 report. We find that our size distribution closely follows that of all formal firms in Kigali.

Figure 2. Distribution of the Survey Respondents by Number of Employees, compared with All Formal Firms in Kigali



Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023) and Integrated Business Enterprise Surveys (IBES, 2019/2021).

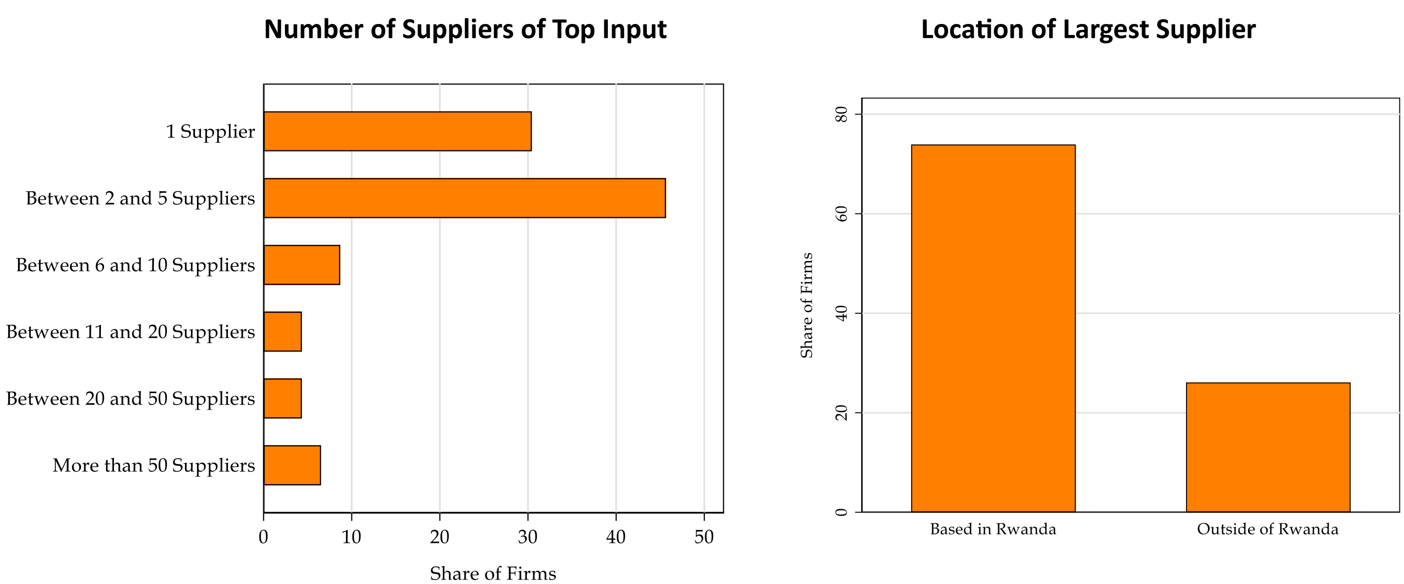
3. Buyer and Seller Characteristics

3.1. Large Buyers

The median large buyer in our sample has total B2B purchases of 390M RWF. Altogether all large buyers in our survey account for purchases around 110B RWF (approximately 90M USD). 41% of them sell only to final customers, 28% only to buyer firms and the remaining 31% to both. As aforementioned the most commonly represented sectors include agriculture and agroprocessing (30%), hotels (26%), manufacturing (20%), services (9%, mostly ICT and logistics) and mining (9%). 26% of our sample of large firms are foreign multinational companies. Some countries of origin include the United States, United Kingdom, Kenya, France, China, India and Belgium.

Buyer-Seller Linkages of Large Buyers: For their most important input, large buyers most commonly have between 2 and 5 suppliers (45% of firms) or just a single supplier (30%), as seen in Figure 3. They most commonly source inputs every month or so (30%), albeit a high number of large buyers source inputs on a weekly basis (21%) or once every few months (28%).

Figure 3. Number of Suppliers in Top Input and Location of Largest Supplier, <u>Sample Restricted to Large Buyers</u>



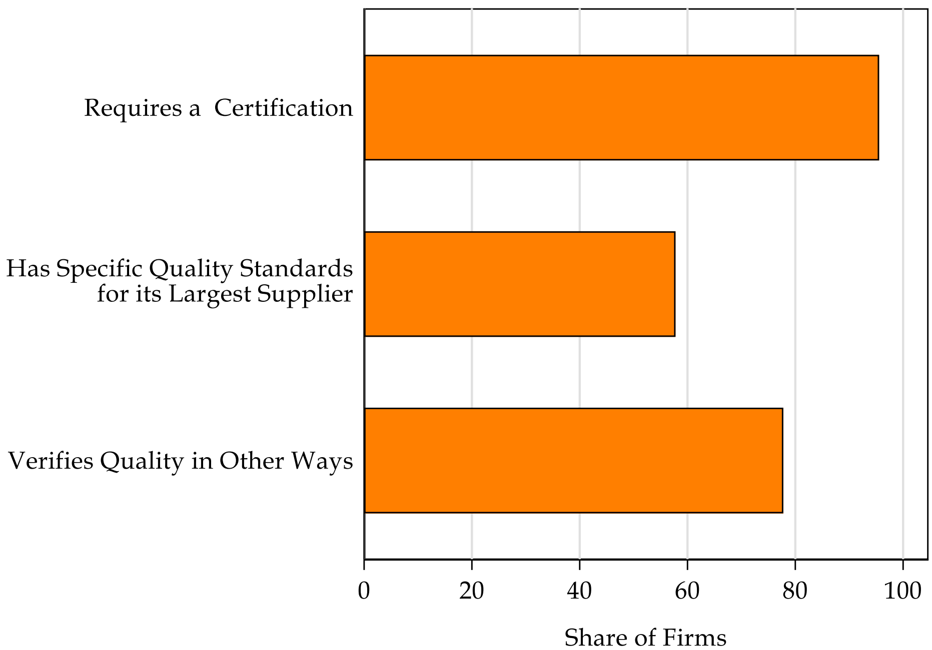
Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

Largest Supplier: Their largest supplier is located outside of Rwanda in 25% of the cases. Approximately half of large buyers have a formal contract with their largest supplier, 10% have an informal contract and the rest do not have a contract with them. Most of the linkages with their largest supplier happened through direct connections with the large buyer itself approaching the supplier in 55% of the cases. Relationship with their largest supplier are long-lived, with 60% of them having started to buy from them 5 or more years ago. Despite such deep relationships, most large buyers (three fourths) source the same input they buy from the largest buyer from other buyers.

Quality Standards of Large Buyers: Large buyers tend to require high quality standards. 95% of them require a certification and almost 80% also verifies quality in other ways (Figure 4). Almost 60% of these large buyers have specific quality standards for its largest supplier. Half of large buyers inspect every delivery.

Figure 4. Quality Requirements of Large Buyers

Sample Restricted to Large Buyers



Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

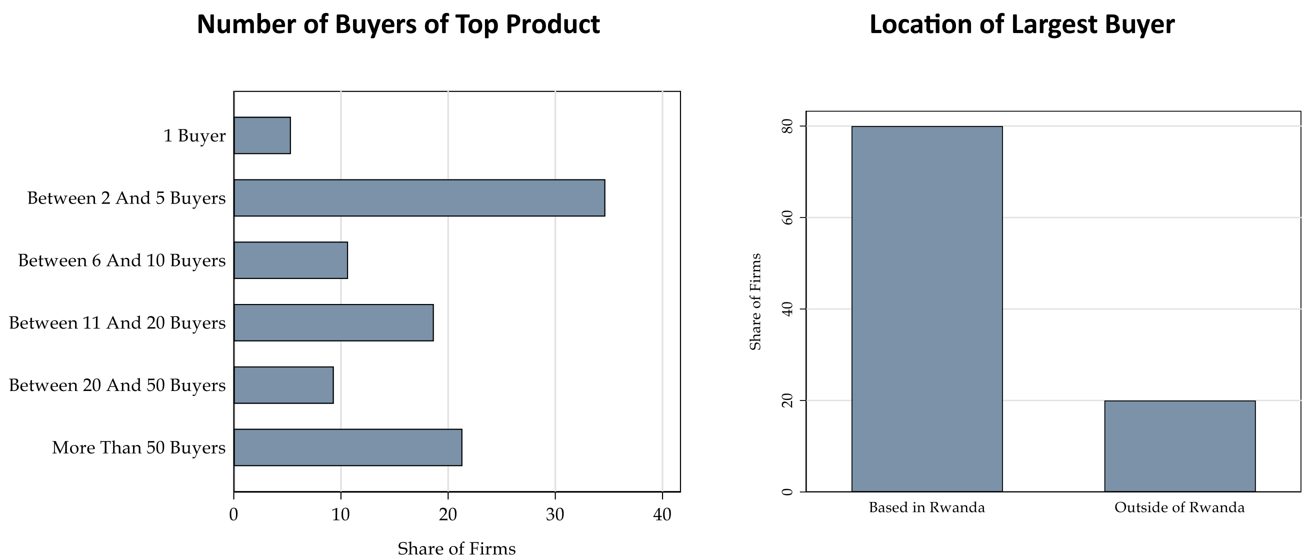
3.2. SME B2B Suppliers

Our sample of SME business suppliers is composed of significantly smaller firms which directly sell to other firms. 50% of these firms have total revenues below 10M RWF, 38% between 10M and 100M RWF and 12% above 100M RWF. In terms of sectoral composition, 44% of them operate in agriculture and Agroprocessing, 20% in textiles and leather products, 17% in handcrafts, 8% in mining, 7% in manufacturing and 4% in services.

Buyer-Seller Linkages of SME B2B Suppliers: On their main product, SME B2B suppliers most commonly have between 2 and 5 buyers (35%), but there is significant heterogeneity (see Figure 5). 30% of firms have between 6 and 20 buyers and another 30% have more than 20 buyers. Just 5% of firms rely on a single buyer. Most of them supply to a typical buyer on a monthly (36%) or weekly basis (28%). So, on this dimension, SME suppliers are aligned with the reports of large buyers. Sharing orders is not infrequent among SMEs: approximately one-third of them does it. Some firms, especially agriculture and animal production firms report collaborating with others to fulfill larger orders, while firms in manufacturing and services seem to resort to subcontracting.

Figure 5. Number of Buyers in Top Product and Location of Largest Buyer,

Sample Restricted to SME B2B Suppliers



Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

Largest Buyer of SME B2B Suppliers: Their largest buyer is located outside of Rwanda in approximately one in five SME B2B firms. Most of them do not have an established agreement with their largest buyer (65%). Only 35% have a formal contract, with 5% having an informal agreement. As with large buyers, many of them met their largest supplier by directly approaching them (33%). However, industry associations (15%), business connections (17%) and personal connections (8%) are all more important for SME suppliers than for large buyers, suggesting the need to diversify their portfolio of clients through other channels. SMEs have also significantly shorter relationships with their largest buyers than large buyers do with their largest suppliers: more than 50% of them started selling to them less than 2 years ago.

Quality Standards of SME B2B Suppliers: 70% percent of our sample of SME suppliers report that their largest buyer does not require them to be certified. Less than one in five indicates that their largest buyer inspects every delivery. This is in stark contrast with the quality requirements of large buyers, which almost always require certifications. Most commonly SME suppliers have local certifications (RDB business registration, RICA, RSB). Approximately one in ten has at least one certification from internationally recognized agencies such as ISO, HACCP, the FDA or Global Gap. 18% of them have the Made in Rwanda certification, and most of them have heard of it (over 90%).

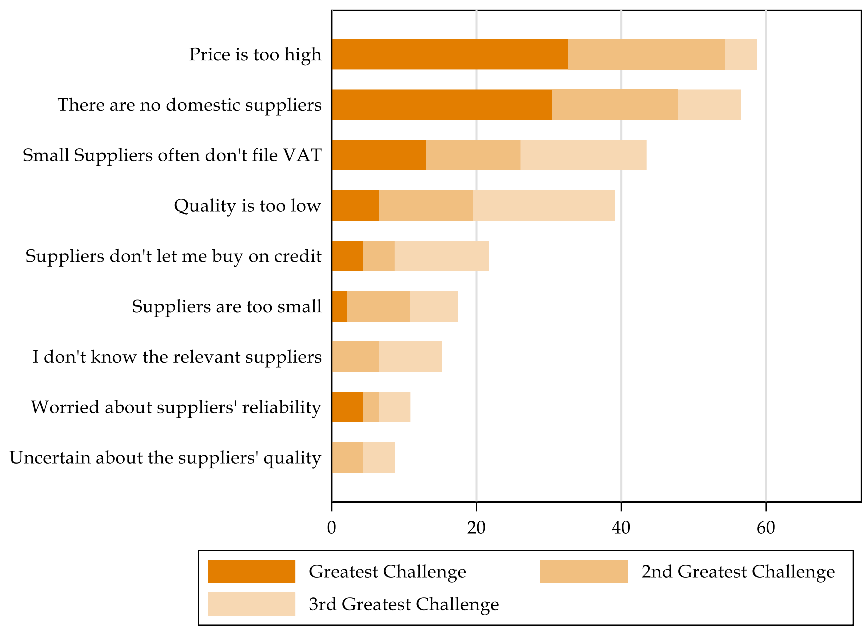
4. Constraints in the Formation of Buyer-Seller Linkages

4.1. Large Buyers

Firstly, we ask large buyers to rank their biggest challenges in connecting with domestic suppliers. Figure 6 ranks the top challenges for large buyers in establishing local buyer-seller linkages, with the darkest bar indicating the top challenge, the intermediate color indicating the second most important challenge and the lightest color indicating the third one.

Figure 6. Top 3 Greatest Buyer Challenges in Forming Local Buyer-Seller Linkages

Sample Restricted to Large Buyers



Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

High Prices: Overall, large buyers report that their most important challenge are the high prices charged by domestic suppliers. 35% large buyers consider it their biggest challenge in linking with local firms and a further 25% consider it their second or third biggest challenge. Approximately half of large buyers strongly agree with the statement that “international suppliers are cheaper than domestic ones” (see Figure A1 in the Appendix), indicating that competing on price may be challenging to local suppliers. Hotels and logistics firms are particularly likely to report this challenge (Figure 7**).**

Lack of Domestic Suppliers: The second most common challenge reported by large buyers in Rwanda is the lack of local suppliers for their main inputs. Approximately one in three reports it to be their biggest challenge in establishing domestic linkages and more than half consider it among the top 3 challenges. Importantly, this challenge may be due to (i) lack of information on domestic suppliers or (ii) real lack of domestic suppliers. Firms that operate in agriculture and manufacturing are disproportionately likely to report this challenge (Figure A3 in the Appendix**)**. The main inputs that large buyers in agriculture and agroprocessing report as not being produced domestically include fertilizers, pesticides, seeds, sugar, packaging materials and agricultural machinery. In manufacturing the main inputs not produced domestically according to large buyers are plastics (PVC, polyethylene), medical equipment and fabrics. In services, large buyers report a lack of domestically produced hotel and cleaning supplies, dry food products, beverages, and hygienic products.

Low and/or Hard to Verify Quality Standards. A high share of large buyers consider relatively low quality or uncertainty about the quality a significant issue. While less than 10% list it as its largest challenge connecting to domestic suppliers, almost 40% consider it among the top 3. Three fourths of large buyers agree that "international suppliers" have quality standards that are easier to verify. This is in line with the relative mismatch in certification status: while it is a requirement for most large buyers, relatively few SME potential suppliers have internationally recognized certifications.

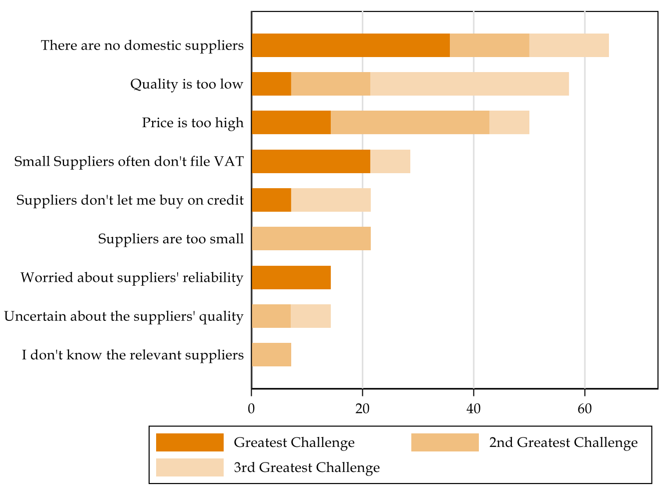
Other Challenges: In some cases, potential SME suppliers are not formally registered and thus they are unable to provide formal electronic bills for VAT filling. This is indicated as a major challenge for large buyers, which require such bills. Another constraint indicated by large buyers is that relatively few suppliers will let them buy on credit. Finally, some large buyers indicated that local suppliers are too small. When asked about other challenges in an open-ended question, large buyers indicated that large distance to their suppliers and price volatility also made establishing buyer-supplier challenging.

Figure 7. Top 3 Greatest Buyer Challenges in Forming Local Buyer-Seller Linkages

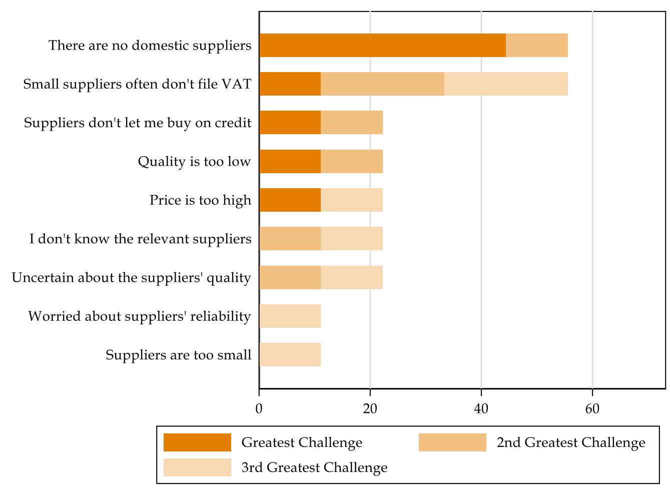
Sample Restricted to Large Buyers

By Sector

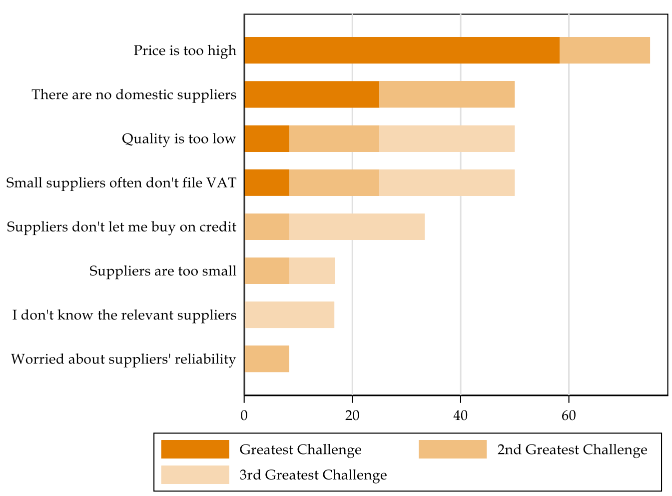
Agriculture and Agroprocessing



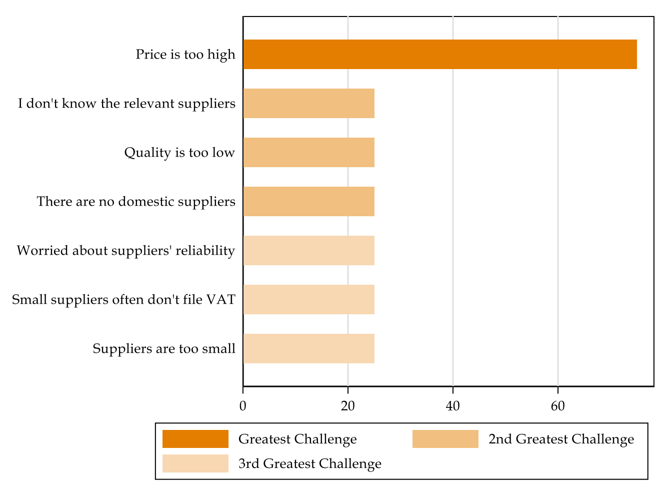
Manufacturing



Hotels



Other Services (ICT, Logistics)



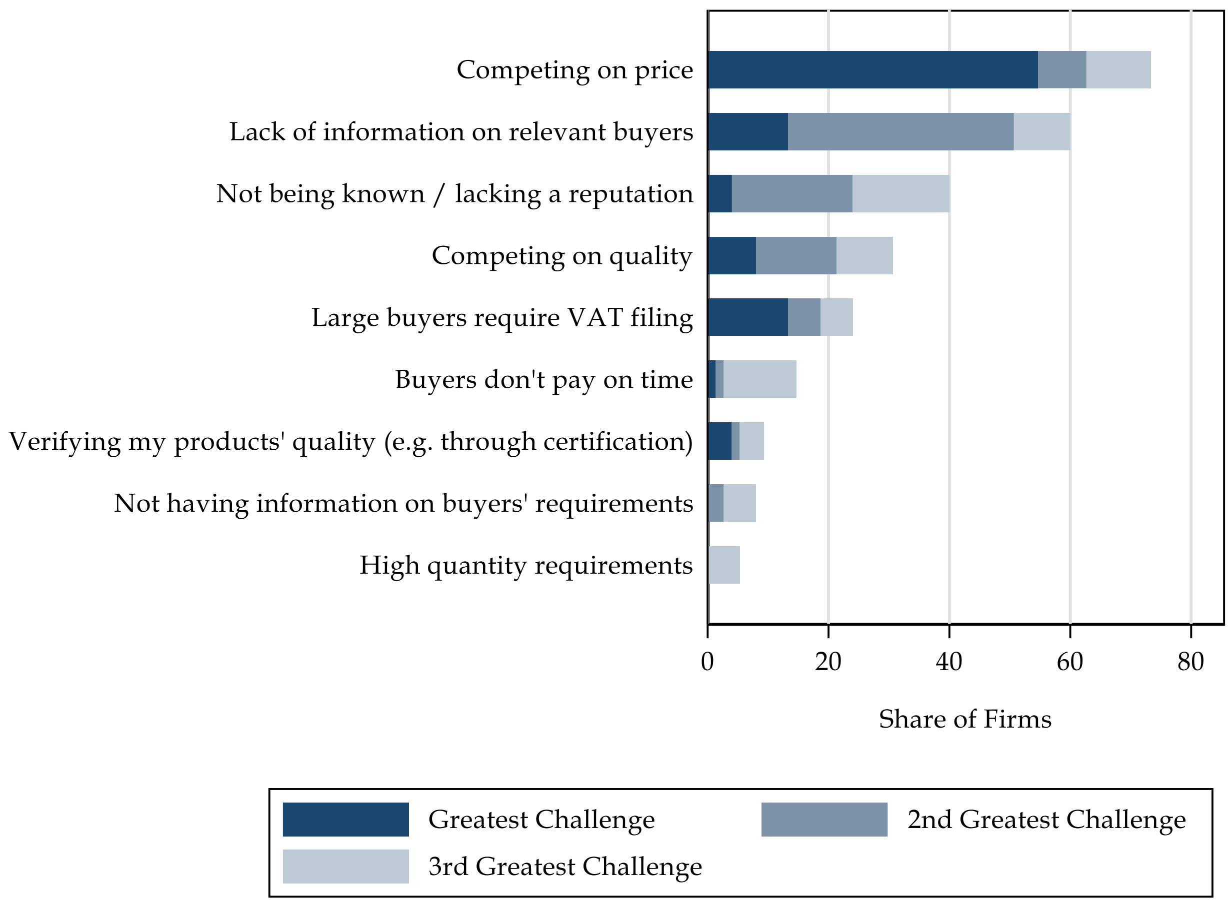
Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

4.2. SME B2B Suppliers

Next, we ask SMEs that supply to other firms their largest challenge in connecting with local buyers. Figure 8 ranks the top challenges for such SMEs in establishing local buyer-seller linkages. As before, the darkest bar indicating the top challenge, the intermediate color indicating the second most important challenge and the lightest color indicating the third one.

Figure 8. Top 3 Greatest Supplier Challenges in Forming Local Buyer-Seller Linkages

Sample Restricted to SME B2B Suppliers



Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

Competing on Prices: The most commonly reported challenge by SME B2B suppliers is competing on prices. Half of the firms indicate that it is their largest challenge and three fourths consider it among their top 3 challenges. This challenge is present across SMEs in most sectors, including agriculture, agroprocessing, light manufacturing and the garment and leather industry (Figure 9). Importantly, firms frequently report it along with difficulties competing on quality: the correlation is slightly positive.

Lack of Information on Relevant Buyer and Lack of Reputation: The second most commonly reported challenge by SMEs is the lack of information on relevant buyers. 60% of firms report it among their top three challenges. Relatedly, the third most commonly reported challenge is not being known or lacking a reputation. Approximately 40% of firms consider such lack of reputation among their top three challenges. Both of these challenges indicate that lack of information is a significant barrier for SMEs: they are unaware of relevant buyers, and they report that potential buyers are likely unaware of them. These informational barriers are likely deepening existing capacity barriers such as difficulties in competing on price and quality.

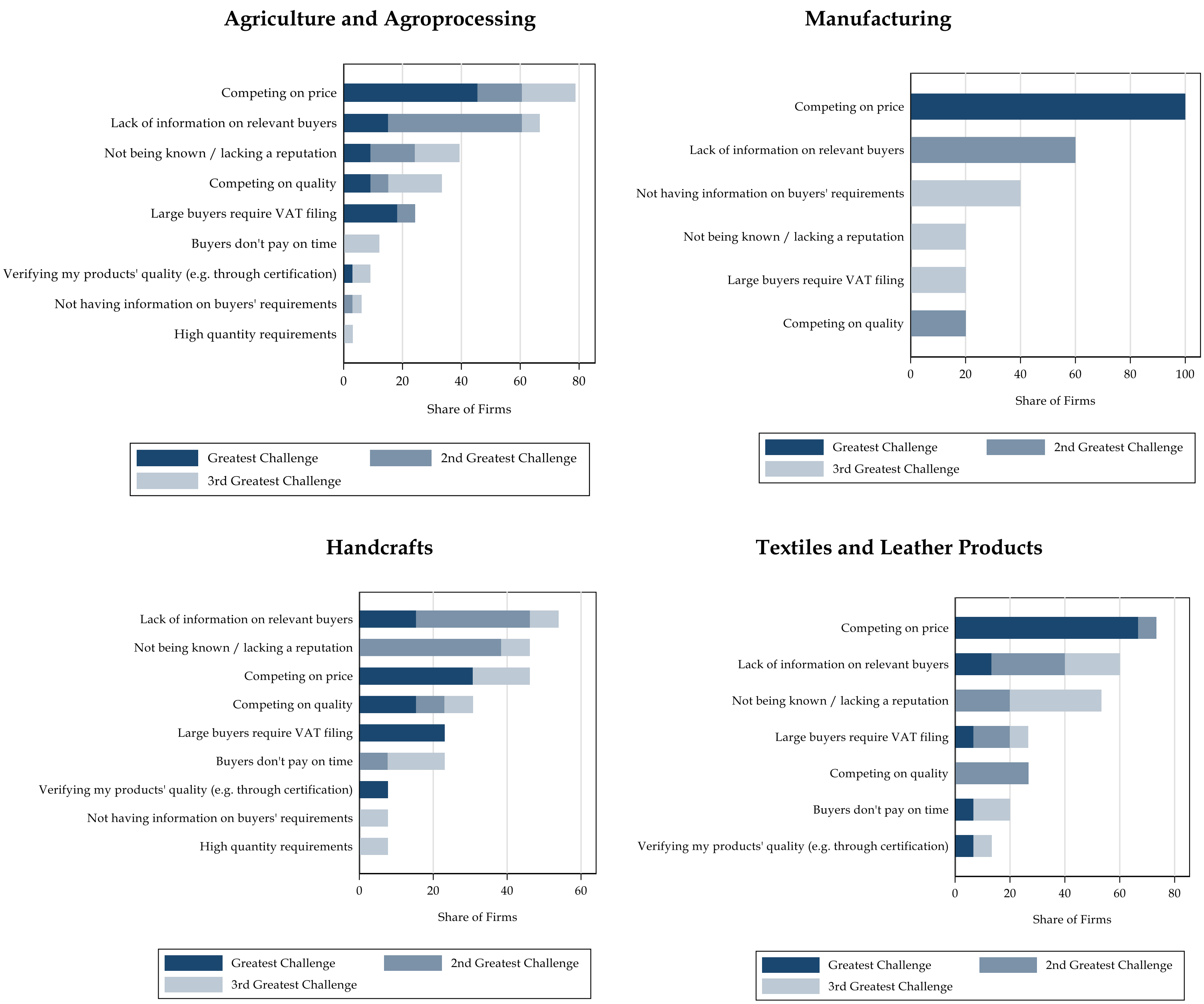
Competing on Quality: Approximately one third of SME B2B suppliers report struggling competing on quality. This concern is particularly common in agriculture, agroprocessing and handcrafts (Figure 9). Interestingly, only one in ten report that verifying the quality of their products (for instance through certification) is a top-3 challenge. This suggests that they perceive that their lack of reputation is, at least in many cases, not due to the lack of a certain certification.

Other Challenges: SME B2B suppliers also report a series of other challenges. Not having a TIN number or a formal registration certificate makes it very challenging for some of them to have larger buyers, as such firms almost always require firms to be registered and to emit formal VAT bills. Some SMEs also indicate that their buyers don't pay in time.

Figure 9. Top 3 Greatest Supplier Challenges in Forming Local Buyer-Seller Linkages

Sample Restricted to SME B2B Suppliers

By Sector



Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

5. Intervention Proposals

5.1. Challenges and Interest in a Pilot Program

The survey results discussed above highlight significant barriers to supplier-buyer linkages. The challenges reported by both large buyers and SME suppliers belong to the following categories: (1) price concerns, (2) informational issues, (3) quality concerns, (4) mismatch of VAT billing practices and (5) size or capacity issues (see Table 2).

Our next step is to determine how to leverage this information to design potential policy interventions aligned with these challenges. These interventions aim to alleviate such barriers, promote matchmaking, and support domestic suppliers.

Table 2. Overview of Challenges in Establishing Local Buyer-Seller Linkages

Type of Challenge	Large Buyers	SME Suppliers
(1) Price	High Price of Suppliers	Cannot Compete on Price
(2) Information Barriers	Lack of Domestic Suppliers	No Information on Buyers Lack of Reputation
(3) Quality	Low / Hard to Verify Quality	Cannot Compete on Quality Need Certifications
(4) VAT Billing	Small Suppliers Cannot Offer Formal Billing	Large Buyers Require Formal Billing
(5) Size / Capacity	Small Local Suppliers	

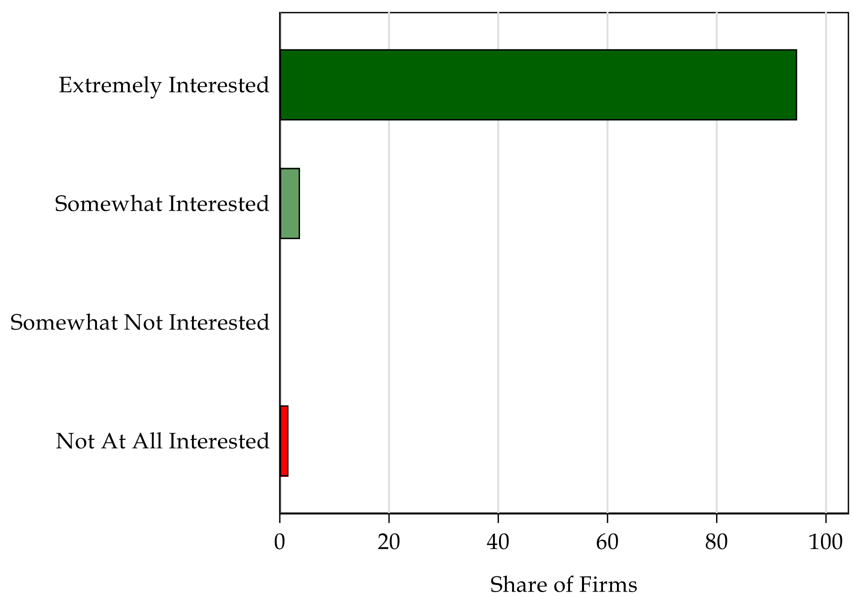
Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

Some of these barriers are of a structural nature and thus require major changes that are beyond 'light' matchmaking interventions. For instance, the relatively high price of domestic suppliers (Challenge 1 in Table 2) is likely due to an interaction of different factors including high transportation costs, low domestic competition, and limited access to cheap production inputs. We will therefore focus on intervention proposals in those barriers that can be effectively addressed through targeted interventions between the International Growth Centre and the Rwanda Development Board.

Informational constraints seem to be particularly acute for SME suppliers, for whom lack of information on potential buyers and a lack of reputation are both among their largest challenges in forming new linkages. Large buyers often report a lack of domestic suppliers as a barrier, which may be partly due to their lack of knowledge about existing suppliers in Rwanda. Based on this evidence, we believe that an intervention that effectively tackles such informational constraints may be impactful in promoting buyer-supplier linkages.

Interest in a Pilot Program. In our survey we asked firms about their level of interest in participating in a joint IGC-RDB program to provide suppliers and buyers with information about each other with the goal of facilitating better linkages among firms. We find a very high level of interest, with 95% of firms answering that they would be "extremely interested" in such a program (see Figure 10). Only 1% of firms report that they would not be interested in it.

Figure 10. Share of Firms Interested in Participating in an IGC-RDB Program to Provide Potential Buyers and Suppliers Information about each other

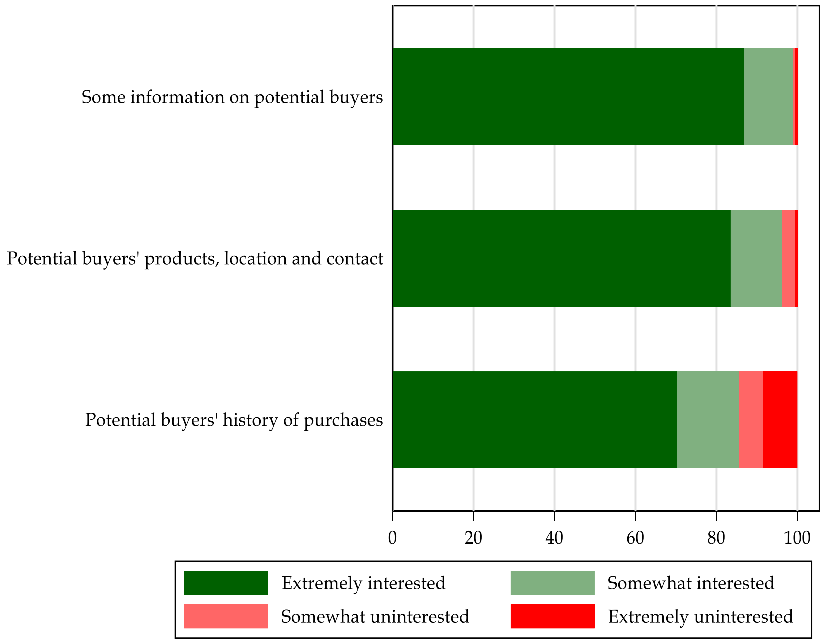


Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

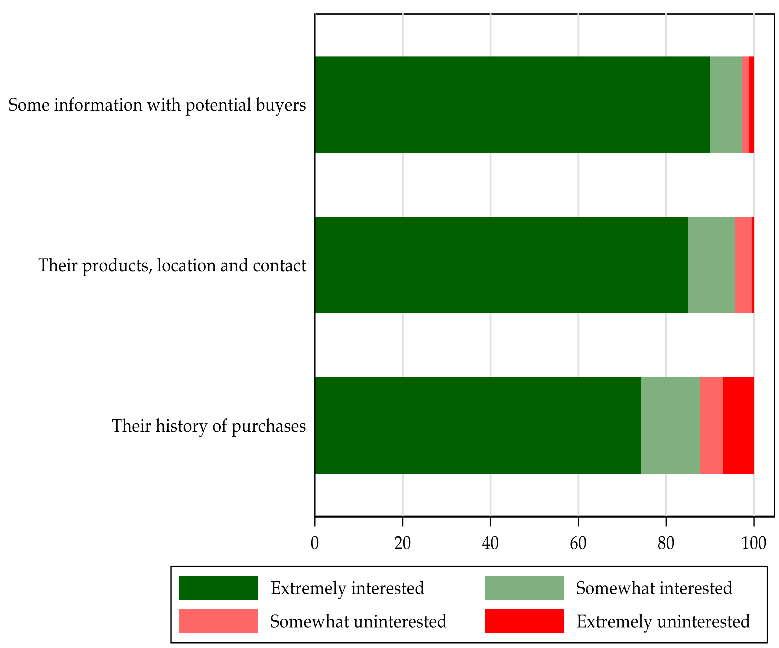
Interest in Sharing and Receiving Information. Firms not only show very high interest for participating in such a program, but also for sharing and receiving specific information. 90% of firms would be interested in sharing their own information with potential buyers and suppliers (Figure 12). A similar share would be interested in receiving such information. Practically all firms would be willing to share information on their products, location, and contact information. Most firms even seem to be willing to share information on their history of sales and purchases, which could be used to build different measures of their track record as successful suppliers/buyers. This could smooth informational frictions related with firms' lack of reputation, which, as discussed above in Section 3, is a particularly salient issue among SMEs.

Figure 11. Share of Firms Interest in in Receiving and Sharing Information in a Pilot Matchmaking Intervention

A. Receiving the Information of Other Firms



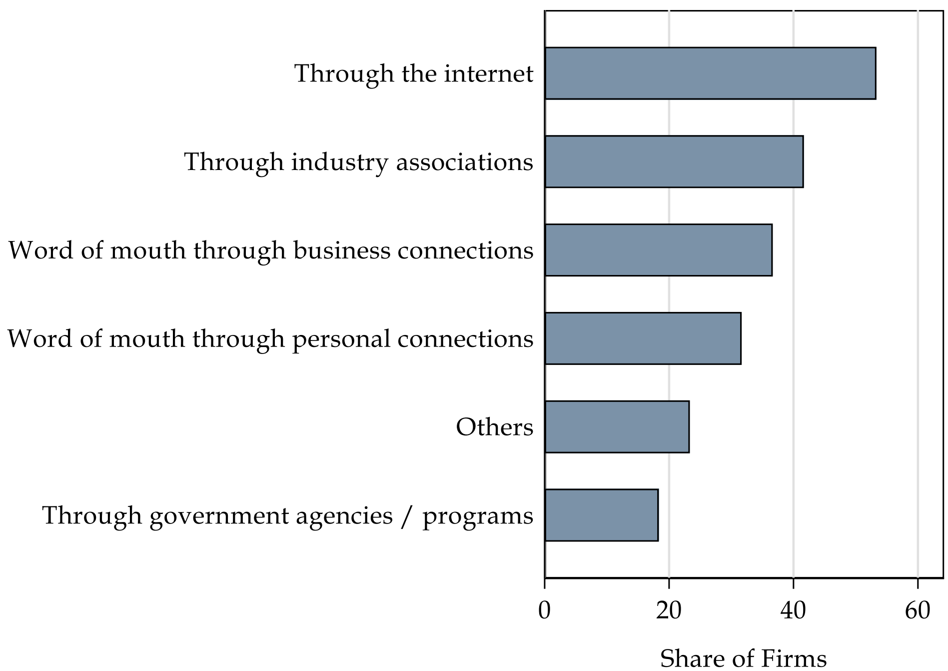
B. Sharing their Own Information



Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

Online Search and Databases. When we ask about how firms prefer this information to be available 92% of firms prefer this information to be available online, with only 7% preferring an in-person dataset available at the RDB offices. This is consistent with the way in which firms actively look for new buyers. Among our respondents, the most common way to find new buyers is through the internet (50%), followed by industry associations (40%). Online search is thus more common than more informal channels such as personal connections (30% of firms).

Figure 12. Most Common Channels to Search for New Buyers



Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023).

Given the clear demand for a database to meet potential suppliers and buyers online, we ask firms whether they are aware of any such database in Rwanda: 94% of firms don't know of any. Among the remaining 6%, 4 firms indicate business-to-consumer (B2C) platforms such as RwandaMart, 3 firms refer to public lists of companies (such as the RDB and PSF directories) and 3 firms to informal channels (particularly to Whatsapp groups). There is no reference to any business-to-business (B2B) platform in Rwanda.

5.2. Potential Interventions

There is a wide range of possible interventions that could be done independently or launched in combination to overcome matching barriers in a decentralized way. Implementing any intervention will require thorough discussions among stakeholders to ensure its effectiveness in the Rwandan context and alignment with policy objectives. Hence, the eventual realization will naturally be an outcome of our ongoing collaboration with the RDB.

Matchmaking Digital Platform. One potential RDB-IGC joint intervention could be a digital platform that provides market participants with information to facilitate firm linkages. As discussed above, SME suppliers report lack of knowledge as an important barrier to developing more local buyer-supplier linkages. Importantly, most firms (i) are willing to both share and receive information on potential trading partners and (ii) do not know of any current systematic way to search for such information. A digital platform could offer updated granular information for both sides of the transaction: including contacts, certification details and capacity.

In-person Matchmaking Events: While a digital platform offers numerous benefits, in-person matchmaking events could serve as an alternative or supplement to a digital platform.

Certification Programs. Quality issues are frequently mentioned by both large buyers and SME suppliers. The RDB is currently running a certification program in collaboration with the RRA. An IGC-RDB collaboration could aim at expanding or evaluating a program that helps firms get quality certification. Importantly, such an intervention could have synergies with a platform that clearly displays such certifications through badges.

Access to Credit and Financing. Some of the constraints identified in buyer-supplier linkage formation are, as explained above, of a more structural nature. Thus, they require larger interventions. Increased access to finance could help solve issues such as the relatively small size of local suppliers as well as quality concerns through quality upgrading and certification projects. Another IGC project in Rwanda is currently assessing the impact of the Export Growth Fund in Rwanda. There could be interesting synergies between that project and the Supplier Development Program.

7. Conclusion

In this study, we aim to understand barriers to domestic supplier-buyer linkages. Our focus of interest lies in the role of information, an aspect less understood in its role in creating domestic trade linkages.
To approach this, we surveyed around 200 suppliers and buyers in Rwanda. Our results point to several barriers on each market side. This includes insufficient quality and prices on the side of buyers and difficulties in competing on prices as well as lack of reputation on the sellers' side. Our results further show that information indeed plays a significant role. Around 60% of sellers state the lack of information on potential buyers as the first, second, or third most important barrier to forming trade linkages. Significantly fewer buyers state the lack of information on potential suppliers as a main barrier. According to our survey, however, the most binding constraint for buyers is the mere existence of suppliers. This allows us to derive two potential explanations: 1) the statement is true as certain products are not being produced in Rwanda. And 2) the statement can also point to information friction where firms only believe a certain product does not exist. A first analysis indeed reveals that both cases do exist depending on the considered industry or product. It will require more in-depth analysis at the product level to understand what holds for a given product and hence to better understand the role of information.

The ultimate goal of this study is to understand the potential for developing interventions, together with our partner RDB, that help to overcome barriers to supplier-buyer linkages. Some of the identified barriers are structural in nature, such as low product quality, and will need larger policy interventions. We believe, however, that other barriers and in particular barriers related to information can be addressed by lighter interventions such as online platforms or matchmaking events. This is supported by a majority of suppliers' and buyers' stated willingness not only to receive but also to share information.
Based on this, we discuss several potential interventions that, alone or in tandem, would help to overcome information and other barriers

Based on the learnings from this study, in collaboration with the RDB we will explore options of implementing potential interventions. Complementary to this, we will dive deeper into the nature of information frictions. In particular, we aim to develop a deeper understanding of Rwanda's current product space to further evaluate the potential for information interventions targeted to specific high-potential industries.

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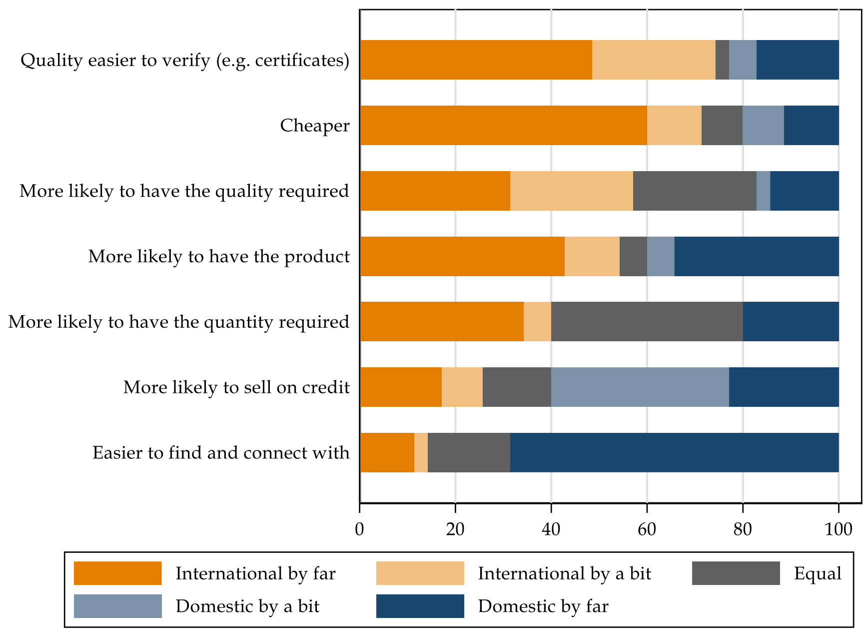
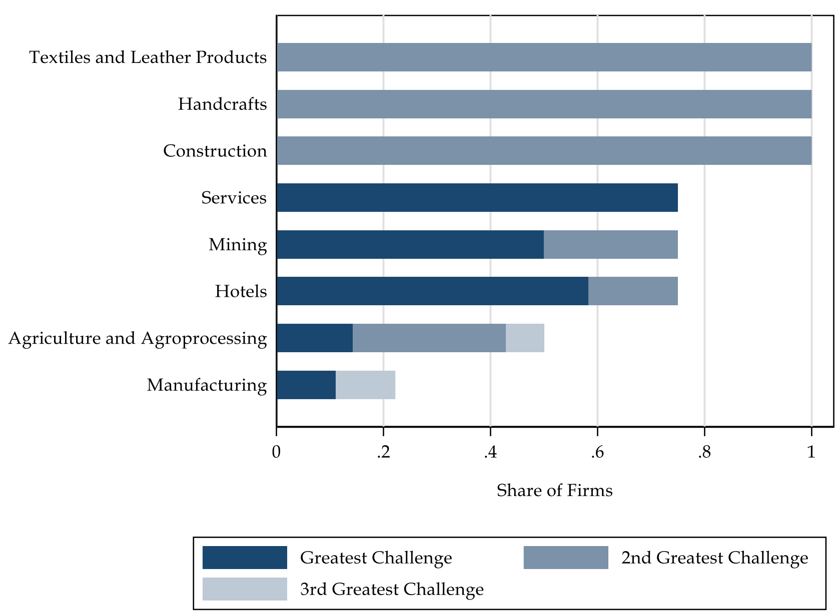
Appendix – Additional Figures

Figure A1. Large Buyers Comparison of International vs Domestic Suppliers



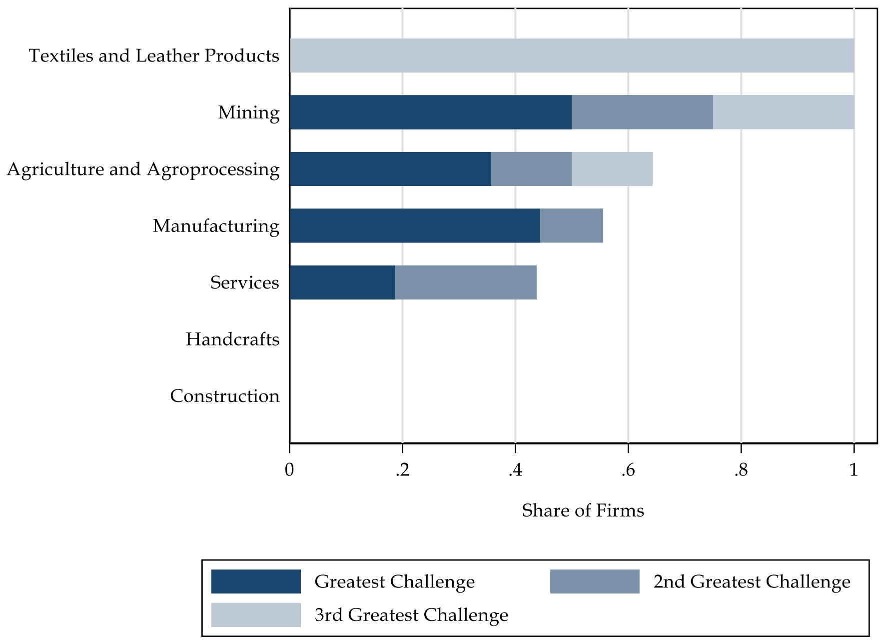
Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023)

Figure A2. Share of Large Buyers that indicate that lack of high prices are a challenge, Sample Restricted to Large Buyers, By Sector



Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023)

Figure A3. Share of Large Buyers that indicate that lack of domestic suppliers is a challenge, Sample Restricted to Large Buyers, By Sector



Source: IGC exploratory survey of buyers and suppliers in Rwanda (2023)

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