Bribes, taxes and regulations: Business constraints for micro enterprises in Tanzania

Odd-Helge Fjeldstad, Ivar Kolstad, Knut Nygaard

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1. Introduction*

Micro- and small enterprises are an important force for economic development and industrialization in poor countries (Helmsing and Kolstee 1993; Mead and Liedholm 1998; Liedholm and Mead 1999; McIntyre and Dallago 2003).\(^1\) It is increasingly recognized that these enterprises contribute substantially to job creation and poverty alleviation. The 2005 World Development Report suggests that creating “sustainable jobs and opportunities for microentrepreneurs [are] the key pathways out of poverty for poor people” (World Bank, 2004:19). Accordingly, fostering an environment favourable to micro-enterprises has become a priority in the development strategies of many developing country governments, and has been given increasing emphasis by the international donor community.

Some of the more prominent reforms to improve business conditions for micro-enterprises, are based on the assumptions that the main constraints to the viability of these enterprises are a lack of formalized property rights, or an inadequate access to finance. The idea that establishing formal property rights is a main precondition for the flourishing of micro-enterprises and the market economy in general, has been championed by de Soto (2000). This argument has been widely embraced. By 2004, almost 30 governments of developing and transitional countries had requested reform as prescribed by de Soto.\(^2\) Similarly, the notion that finance restricts the development of micro-enterprises, has led to a proliferation of micro-finance programmes in developing countries over the past two decades (see, for instance, Robinson 2001; and DERG 1999). Though popular among donors, questions have been raised as to whether micro-finance has proven to deliver the advantages attributed to it, and whether micro-finance institutions actually meet the needs of businesses in an adequate manner (Morduch, 1999; Eversole, 2003).

Efforts to combat corruption are widely regarded as important for improving business conditions in developing countries. Corruption increases the costs of doing business, and imposes a tax on entrepreneurial activity (World Bank, 2004). Empirical studies on the effects of corruption are mostly cross-country analyses. As pointed out by Svensson (2003:208), they thus tell us “little about the relationship between corruption and individual agents”, and “cannot … explain the within-country variation in corruption”. Drawing on survey data from Uganda, Svensson (2003) finds that a majority of firms pay bribes, and the amounts are on average large (8% of total costs). The probability of having to pay bribes depends on the extent to which a firm has to deal with public officials. Firms that are reliant on infrastructure services, firms in the import/export sectors, or firms that pay several types of taxes, are more likely to pay bribes. Furthermore, the amount paid increases in firm profitability and decreases if the firm has valuable outside options. As Svensson’s study focuses on larger firms, however, these results do not necessarily extend to micro-enterprises.

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1 Micro and small enterprises are defined as income generation manufacturing, commercial or service activities that market at least half of their production, and employ fewer than 49 people (URT, 2003a; UDEC, 2002). The defined size of micro enterprises varies in the literature. UDEC (2002) defines it as firms with less than 10 employees, while the Regional Program on Enterprise Development (RPED) in Africa refers to firms with 0-5 employees (Blanc, 1997). In this paper we use the RPED-definition, which also is consistent with the Tanzanian government’s definition (URT 2003a).

Besides being a possible determinant of graft, *infrastructure* is also viewed as an important part of a country’s business climate, in and of itself. According to Prud’homme (2004:16), infrastructure promotes private sector activity because it “lowers the cost of … inputs used by enterprises”, and it “enlarge[s] goods markets”. There is a large literature of attempts to empirically estimate the impact of infrastructure on economic activity, but most of this literature uses macro-data (see Gramlich 1994, for a survey). Ascertaining the importance of infrastructure for individual firms thus requires additional studies, employing data at the firm level. Similarly, the quality of *institutions* has been proven to matter for private sector activity on an aggregate scale (see Brunetti and Weder 1998; Svensson 1998; Bohn and Deacon 2000). Knowledge is scarce, however, on how institutional quality affects the operating conditions of micro-enterprises.

The purpose of this paper is to examine and identify the main constraints on the operations of micro-enterprises in Tanzania, using data from a survey of 160 firms. Respondents were asked to rate the importance of problems relating to property rights, access to finance, taxation, corruption, infrastructure, institutional quality, and a number of other possible constraints. The main contribution of the paper is therefore to revisit the claims that these types of constraints are prohibitive for business operations at a micro level, requiring intervention from governments and/or development agencies. Our results reveal that property rights and financial constraints are much less important than current policies would presuppose, whereas our analysis confirms previous results on a variable such as corruption.

The paper proceeds as follows: Section 2 outlines the basic analytical framework of the study, enumerating and elaborating on the potential constraints facing micro-enterprises. The methodological approach and organisation of the empirical study are addressed in Section 3. Section 4 presents the results, and Section 5 concludes.

### 2. Potential constraints on micro-enterprises

In identifying constraints on the business operations of micro-enterprises, the idea is to ascertain the variables that are perceived to be of importance for the daily operations of firms, for staying in business, making a living or turning a profit. The focus is thus on the current viability of the firms, rather than on variables that constrain the future expansion of the business through investment (though the two can of course be linked). Moreover, the phrasing of questions in terms of constraints instead of e.g. opportunities, might serve to tighten this focus.

The question posed to respondents reads “How serious constraints for your business are the following areas?”. Respondents were asked to rank a series of issues on a scale from 1 to 3, where 1 = “No problem”, 2 = “Moderate problem”, and 3 = “Severe problem”. A total of 21 issues (or variables) were rated in this way, broadly representing nine categories of constraints, as presented in Table 1. The variables were selected based on the theory of profit maximizing firms and empirical studies of firm behaviour. An important contribution to the literature on small firms and economic development is that of Liedholm and Mead (1999), who use survey data from five African countries (Botswana, Kenya, Malawi, Swaziland, Zimbabwe) to identify major problems faced by small enterprises. Our study expands on that of Liedholm and Mead, by including issues such as property rights, corruption, and infrastructure (other than transport). We also include a larger set of issues than those quoted in the 2005 *World Development Report* (World Bank, 2004).
Table 1. Nine categories of constraints, 21 variables

<table>
<thead>
<tr>
<th>Economic variables</th>
<th>Property rights</th>
<th>Finance</th>
<th>Corruption</th>
<th>Infrastructure</th>
<th>Institutions</th>
<th>Regulations</th>
<th>Taxation</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition</td>
<td>Access to land</td>
<td>Access to finance</td>
<td>Corruption</td>
<td>Poor quality of utilities</td>
<td>Political instability</td>
<td>Import/export regulations</td>
<td>High tax rates</td>
<td>Lack of business support services</td>
</tr>
<tr>
<td>Cost of raw materials</td>
<td>Unclear property rights</td>
<td>Interest rates</td>
<td>High utility prices</td>
<td>Failure to enforce contract</td>
<td>Other regulations (licenses, permits)</td>
<td>Uncertainty about tax policies</td>
<td>Exchange rate</td>
<td></td>
</tr>
<tr>
<td>Insufficient demand</td>
<td>Crime/security</td>
<td>Tax administration/TRA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to raw materials</td>
<td>Other constraints</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the basic maximization problem of the firm, we know that the profit function includes the prices of goods and inputs. To capture these two, the issues insufficient demand and cost of raw materials are included. Using the term demand rather than prices for final goods, was done to make the study comparable to that of Liedholm and Mead (1999), which finds that access to markets for their products, is a major problem for firms. Liedholm and Mead also find evidence that firms are constrained in their access to raw materials, so we include this as a variable. Standard results from the industrial organization literature indicate that profits decrease in the number of competitors. Therefore, competition is included as a basic economic variable.

In order to capture the idea of de Soto (2000), that property rights are key concerns for entrepreneurs, we include two different issues to test this hypothesis. The first is unclear property rights, which is one way of saying that property rights are not sufficiently formalized. Since the policy initiatives based on de Soto’s prescriptions have focused to a great extent on property rights to land, we also include access to land as a variable in this category. As our sample consists of firms in urban areas, however, there is reason to expect that this variable will not matter all that much to the firms surveyed.

To test the importance of financial constraints, we add access to finance and the price of capital, interest rates, to our set of issues. Liedholm and Mead (1999) find access to capital to be a major challenge to enterprises. Their study further discriminates according to type of capital, a point which we do not pursue.

The corruption variable simply captures whether having to pay bribes is perceived as a significant constraint on businesses. As noted by Svensson (2003), bribes are a significant cost to firms, which motivates the inclusion of this variable. In addition, we revisit Svensson’s result that the incidence of corruption differs between firms, according to their interaction with public officials and their profitability.

In terms of infrastructure constraints, we have chosen to focus on public infrastructure, and in particular utilities. A distinction is drawn between the quality of utilities and the cost of utilities. Our study in this manner complements that of Liedholm and Mead (1999), which includes transport as its sole infrastructure variable, a variable they find to be important only to a small subset of firms.

As for institutional variables, the first of these is political instability. Instability of this kind has been shown to matter for investment and growth at an aggregate level (Levine and Renelt 1992). It is therefore important to test whether this effect can be traced to the micro-level (Nkya 2002). A number of studies of aggregate investment also include contract enforceability in their set of
explanatory variables (Knack and Keefer 1995; Svensson 1998). Similarly, we ask whether failures to enforce contracts are a constraint on micro-enterprises. Crime and insecurity can impose significant costs and uncertainty on firms, so we add this as a third issue reflecting institutional quality.

Related to institutional quality, are regulatory aspects. To test perceptions of the impacts of regulations, we distinguish between two issues, import/export regulations and other regulations, the latter of which contains such matters as licences and permits. There is substantial evidence that regulations can be extremely rigid in many developing countries; starting a business can take months, and getting the required permits can be a cumbersome and time-consuming affair (Devas and Kelly 2001; Sander 2003; UNDP et al 2004). By including these variables in the study, we are able to test whether these issues are actually perceived by firms as a significant problem.

A large body of literature suggests that taxation affects the opportunities and behaviour of firms (see Crocker and Slemrod 2005; and Goolsbee 2004, for two recent examples). The importance of the tax system to micro-enterprises is elicited by including three variables. The first two are pretty standard, whether tax rates are perceived to be high, and whether there is uncertainty about tax policies. The third variable in this category is more country-specific, reflecting the fact that Tanzania established a semi-autonomous tax authority in 1996, the Tanzania Revenue Authority (TRA). Studies indicate that the initial success of this model may have been reversed lately (Fjeldstad 2003; Taliercio 2002). It is therefore of interest to see how taxpayers such as micro-enterprises, concur in this evaluation or take a different view.

A final category contains miscellaneous issues, including a lack of business support services, exchange rates (which are found to matter for investment in studies by Campa et al 1998; McCorriston and Sheldon 1998), and other issues.

In addition to the ranking of constraints to business operation, relevant background information on each firm was collected. This includes basic information on sector, location, number of employees, legal status of the firm, nature of ownership, the educational background of the owner, and whether the firm belonged to a professional or business association. The respondents were also asked about sales, bribes and taxes paid, investment, fixed assets, and turnover. Furthermore, the survey featured more in-depth questions on public regulations, informal payments, relations to civil servants and politicians, tax and licence procedures, and more. In the following, this additional information will be used to elaborate on the results from the rating of constraints.

3. Methodology and organisation of the study

In Tanzania, micro and small enterprises contribute more than 30% of GDP (Wangwe and Semboja 1997; Toroka and Wenga 1997). The sector is significant in urban as well as rural areas, though most enterprises are located in towns and cities (Bagachwa 1990). Estimates of the percentage of the labour force employed in micro- and small enterprises range from 38% to 56% in urban areas, and between 10% and 15% in rural areas (Bendera 1997; Kessy and Urio 2004). Recently, the Government of Tanzania has introduced a small and medium enterprise development policy (URT 2003a).

3.1 Sampling

The Business License Act no. 25 of 1972 requires all enterprises to register in the councils where they are located. Moreover, businesses with a turnover above a specific threshold have to register
for Value-Added-Tax (VAT) at the Tanzania Revenue Authority. In our sample, 29% of the firms are VAT-registered. Many businesses, however, do not register their activities. In particular, this is the case in Dar es Salaam, which experiences a large inflow of people from rural areas and a high buoyancy of firms being established, as well as many vanishing. Hence, they do not appear in the councils’ business registers. However, increasingly urban local authorities pursue a policy of registering firms. This is reflected in the fact that the lion’s share of the urban councils’ own revenues is generated from various taxes, fees and licenses imposed on firms.

Cities and municipal councils in Tanzania have a department of trade that deals with assessment and registration of firms that operate in their respective areas. The department keeps records of business firms with regard to their license status, type of enterprise, sector, etc. Hence, the list provided by the department of trade at the local government level formed the population reference for the firms included in the survey. Respondent firms were selected using skip method after clustering them into business sector categories. The number of respondent firms in each category was weighted by the proportions in the total sample and location.

The survey was conducted in November 2000 and comprised 160 micro enterprises. On average, the firms employed 2.2 people, including the owner. The survey covered 134 firms in Dar es Salaam (Kinondoni and Temeke municipalities) and 26 firms in Moshi Urban Council, a small rural town in the Kilimanjaro Region.

### 3.2 Categorisation of data

Given the predominance of small retail businesses in the population of micro-enterprises in urban areas of Tanzania, by far the greater part of the sample were in the trade sector. Two-thirds (66%) of the businesses surveyed were in this sector (106 enterprises), most of which sell food and other small items, building materials or domestic equipment, motor spare parts and repair, or garments and footwear. Based on the large number of observations in this sector, it seems fair to regard the sample as fairly representative of the sector as a whole. The second largest sector in our sample is services (17%), which include hair salons, secretarial services, tour operators, insurance, fumigation and more. The sample holds 27 observations in this sector, so we interpret it as borderline representative of the sector as a whole. For the remaining sectors, hotels and restaurants (8%), manufacturing (7%), and other industries (3%), results will be interpreted as suggestive rather than conclusive, since the number of observations in each sector is limited.

The sampled firms are quite diverse on a number of characteristics. The majority of firms is 3-7 years old (54%), while about one fourth (27%) is new starts, and one fifth (19%) more than 7 years of age. One of the main conclusions of Liedholm and Mead (1999) is that newly started businesses have needs quite different from firms that have existed for some time. By distinguishing between firms at different stages in their development, we can test whether and how this should influence policy to promote micro-enterprise growth. Similarly, the dataset permits us to check whether the size of the firm, and the educational background of its owner, has an impact on what is perceived to be major constraints on business. It is also possible to distinguish between firms that belong to business associations, and firms that do not, but since the number of firms that do is very small, such results would have to be interpreted cautiously.

The proportion of female respondents in our sample is just above one third. Since the argument has been made that female entrepreneurs face certain gender-specific challenges, it is of interest to see whether perceived constraints differ on the gender dimension (Ellis 2003).

A feature of the survey which causes certain complications is the fact that about 65% of the respondents were not owners, but managers and other staff. This might cause potential biases which
need to be kept in mind (see next section). Slightly less than one third of owners interviewed were
women, which is consistent with estimates of female ownership from other studies (World Bank
2004:34).

3.3 Problems and biases
Surveys of perceptions invariably create certain methodological problems that can lead to biases in
the results. It is therefore important to interpret results from this type of data with care, and to be
aware of and check for potential biases wherever possible. Conducting a survey of this kind is a
fairly resource-intensive approach, and often entails a limited set of observations due to resource
constraints. For our sample, this is evident in the distribution of observations across sectors. It can
also be a problem in other classifications of the data, commanding some caution in the
interpretation of results. The population of businesses from which our sample was selected is also
more limited than would be ideal. The population includes only existing firms registered with the
departments of trade, which implies that existing unregistered firms, entrepreneurs who were
prevented from starting a firm, or firms that have closed down, are included neither in the
population nor in the sample. As the firms that were never started, or the ones that closed up shop,
are likely to have highly relevant information on business constraints, this is unfortunate, but fairly
unavoidable in these types of studies.

Additional biases due to the survey approach stem from the fact that responses may be sensitive to
the way questions are phrased, the interaction between interviewer and informant, and the general
social situation in which interviews are conducted. Though care has been taken to minimize these
problems, they might to some extent remain. For instance, the scale for rating the potential
constraints, and the constraints included, might take on different meanings to different respondents.
There is also the possibility that respondents tell the interviewer what he or she wants to hear, rather
than give an accurate response on perceptions.

As with any study of perceptions, the subjective nature of the data is inherently problematic. What
firm owners perceive to be important constraints, might not correspond perfectly to what the real
constraints to his or her business are. In this study, this problem is augmented by the fact that not all
respondents are owners of the firm. There might be substantial differences between what an owner
thinks important and what managers or employees emphasize as problems. As the firms in this
study are very small, one can however argue that the interests of employees do not depart that much
from that of owners, which implies that this should not create too much of a bias. In general, we
also use the more objective data available to us (on sales, bribes and taxes paid etc) to test the
robustness of results, wherever appropriate.

In spite of the problems of the survey-based approach, getting more objective data in this area is
difficult. And though results should be interpreted with care, we should at least be able to identify
some major constraints on the operations of micro-enterprises. This study is thus a first step towards
confirming or disproving hypotheses, which can later be revisited by studies using different
methodological approaches. At present, survey-based evidence of this kind provides the best
available information to advise policy in this area.

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3 Comparing the constraint perceptions of owner and non-owner respondents, we find that though there is
some variation between the two groups, their views do not significantly differ on the policy variables
highlighted in this study. One important exception is "Uncertainty of tax policy", which is cited as a severe
constraint by a significantly higher proportion among owners (33%) than among employees (12%). This may
reflect that tax issues are mainly dealt with by the owner.


4. Results

The most important policies to promote micro-enterprises are those that address problems that are binding for enterprises. To focus on binding constraints, the subsequent analysis places an emphasis on the types of constraints that enterprises report to be “Severe problems”. Moreover, in pursuing and examining certain constraints in more detail, the focus will be on constraints for which there are corresponding policy levers that are available to public intervention, such as aspects of the tax system and corruption. This section begins by giving an overview of the major constraints for micro-enterprises across and within sectors, and then moves on to disaggregate constraints according to other dimensions of the firms and of the respondents. The statistical analysis consisted of a step-by-step process, starting with frequencies, correlations, and cross-tabulations combining bi- and multivariables, and, finally, an exploratory analysis of the results. Due to the nature of the dataset, and potentially missing control variables, we are reluctant to submit the data to extensive regression analysis.

4.1 Results in aggregate and by sector

In Table 2, constraints are ranked according to the percentage of the total sample of firms that has denoted it a severe problem (percentage given in the final column). As the table reveals, six constraints are reported to be severe by at least 50% of all firms: Competition, costs of raw materials, regulations (licences and permits), high taxes, insufficient demand, and corruption. Across sectors, these are thus the major constraints facing micro-enterprises. In particular, the results confirm the importance of corruption as a constraint on these enterprises. On the other hand, neither property rights nor access to finance are deemed important constraints; only about 11% and 21%, respectively, have reported these to be severe problems. Though not among the highest ranked concerns of entrepreneurs, infrastructure in the form of utilities, has been identified by almost 40% as restrictive. The results on institutional variables are more mixed but low, ranging from percentages in the 30s for contract enforcement and crime, to 2.5% for political instability.

Table 2. Constraints reported to be severe (by sector and in total)

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Trade</th>
<th>Services</th>
<th>Hotels/restaurants</th>
<th>Manufacturing</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition</td>
<td>81.1</td>
<td>77.8</td>
<td>66.7</td>
<td>72.7</td>
<td>100</td>
<td>79.4</td>
</tr>
<tr>
<td>Cost of raw materials</td>
<td>72.6</td>
<td>66.7</td>
<td>33.3</td>
<td>72.7</td>
<td>100</td>
<td>69.4</td>
</tr>
<tr>
<td>Other regulations (licences, permits)</td>
<td>67.9</td>
<td>63</td>
<td>66.7</td>
<td>63.6</td>
<td>100</td>
<td>67.5</td>
</tr>
<tr>
<td>High tax rates</td>
<td>67.9</td>
<td>85.2</td>
<td>33.3</td>
<td>45.5</td>
<td>75</td>
<td>66.9</td>
</tr>
<tr>
<td>Insufficient demand</td>
<td>65.1</td>
<td>37</td>
<td>75</td>
<td>63.6</td>
<td>100</td>
<td>61.9</td>
</tr>
<tr>
<td>Corruption</td>
<td>51.9</td>
<td>66.7</td>
<td>33.3</td>
<td>36.4</td>
<td>100</td>
<td>53.1</td>
</tr>
<tr>
<td>Poor quality of utilities</td>
<td>26.4</td>
<td>66.7</td>
<td>66.7</td>
<td>63.6</td>
<td>50</td>
<td>39.4</td>
</tr>
<tr>
<td>High utility prices</td>
<td>35.8</td>
<td>44.4</td>
<td>41.7</td>
<td>63.6</td>
<td>-</td>
<td>38.8</td>
</tr>
<tr>
<td>Tax administration/TRA</td>
<td>37.7</td>
<td>59.3</td>
<td>8.3</td>
<td>27.3</td>
<td>25</td>
<td>38.1</td>
</tr>
<tr>
<td>Failure to enforce contract</td>
<td>33</td>
<td>40.7</td>
<td>8.3</td>
<td>63.6</td>
<td>100</td>
<td>36.3</td>
</tr>
<tr>
<td>Access to raw materials</td>
<td>31.1</td>
<td>55.6</td>
<td>-</td>
<td>45.5</td>
<td>50</td>
<td>34.4</td>
</tr>
<tr>
<td>Import/export regulations</td>
<td>28.3</td>
<td>66.7</td>
<td>-</td>
<td>18.2</td>
<td>25</td>
<td>31.9</td>
</tr>
<tr>
<td>Crime/security</td>
<td>34</td>
<td>22.2</td>
<td>33.3</td>
<td>18.2</td>
<td>50</td>
<td>31.3</td>
</tr>
<tr>
<td>Access to land</td>
<td>20.8</td>
<td>18.5</td>
<td>25</td>
<td>27.3</td>
<td>50</td>
<td>21.9</td>
</tr>
<tr>
<td>Access to finance</td>
<td>21.7</td>
<td>29.6</td>
<td>-</td>
<td>18.2</td>
<td>-</td>
<td>20.6</td>
</tr>
<tr>
<td>Uncertainty about tax policies</td>
<td>14.2</td>
<td>51.9</td>
<td>-</td>
<td>9.1</td>
<td>25</td>
<td>19.4</td>
</tr>
<tr>
<td>Lack of business support services</td>
<td>15.1</td>
<td>37</td>
<td>16.7</td>
<td>9.1</td>
<td>25</td>
<td>18.8</td>
</tr>
<tr>
<td>Unclear property rights</td>
<td>10.4</td>
<td>14.8</td>
<td>16.7</td>
<td>9.1</td>
<td>-</td>
<td>11.3</td>
</tr>
<tr>
<td>Exchange rate</td>
<td>7.5</td>
<td>14.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7.5</td>
</tr>
<tr>
<td>Interest rates</td>
<td>4.7</td>
<td>14.8</td>
<td>-</td>
<td>9.1</td>
<td>-</td>
<td>6.3</td>
</tr>
<tr>
<td>Political instability</td>
<td>1.9</td>
<td>7.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.5</td>
</tr>
<tr>
<td>Other constraints</td>
<td>-</td>
<td>3.7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>106</td>
<td>27</td>
<td>12</td>
<td>11</td>
<td>4</td>
<td>160</td>
</tr>
</tbody>
</table>
There are, however, distinct differences in constraints between sectors. The only constraint to be consistently deemed severe across all sectors, is competition. For constraints such as corruption, taxes, regulations, and infrastructure, we discuss the differences in the following subsections. Since there are few observations for hotels/restaurants, manufacturing and others, we limit ourselves to comparing the results for trade and for services. Constituting the bulk of the observations, the ranking of constraints in the trade sector roughly follows that of the total sample.

4.1.1 Corruption

A greater share of firms in the service sector deems corruption a serious constraint, than in the trade sector. This result becomes even more interesting as we examine the other variables that the services sector stresses more heavily than the trade sector. The service sector is more concerned about taxes (all three tax variables score above 50%), infrastructure (67% of service firms complain about poor quality of utilities), and import/export regulations (also 67%). Comparing the two sectors, we thus see that the sector that complains the most about its contact with the public sector, is also the sector that sees corruption as a greater problem. Our results thus seem consistent with those of Svensson (2003), who finds that firms in Uganda that pay bribes interact more heavily with public officials, than firms that do not pay bribes.

Our data on bribes paid, reveals that 88% of all firms report paying a positive amount in bribes. To pursue more closely the relationship between bribes and interaction with public officials, we split the sample into firms that report paying bribes and firms that do not. Table 3 reports the share of firms in the two sub-samples that finds regulations, utilities and taxes, a severe problem. As the last column shows, bribe-paying firms are significantly more concerned with regulations and the quality of utilities, than firms that do not report paying bribes. There is, however, no difference in the perception of tax rates. Firms that do not pay bribes are in fact significantly more concerned with the uncertainty of tax policies. Our results are therefore largely consistent with those reported by Svensson (2003), in linking the incidence of corruption to interaction with public officials, in the form of regulations and infrastructure. The differences in results on taxes, might be due to differently specified tax variables.

Table 3. Severe constraints for firms that do and do not report paying bribes

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Bribe&gt;0</th>
<th>Bribe=0</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other regulations (licences, permits)</td>
<td>72.3</td>
<td>31.6</td>
<td>40.8***</td>
</tr>
<tr>
<td>Import/export regulations</td>
<td>34.8</td>
<td>10.5</td>
<td>24.2**</td>
</tr>
<tr>
<td>Poor quality of utilities</td>
<td>41.8</td>
<td>21.1</td>
<td>20.8*</td>
</tr>
<tr>
<td>High tax rates</td>
<td>67.4</td>
<td>63.2</td>
<td>4.2</td>
</tr>
<tr>
<td>Tax administration/TRA</td>
<td>37.6</td>
<td>42.1</td>
<td>-4.5</td>
</tr>
<tr>
<td>Uncertainty about tax policies</td>
<td>15.6</td>
<td>47.4</td>
<td>-31.8***</td>
</tr>
</tbody>
</table>

N 141 19

***, **, * significant at the 0.01, 0.05 and 0.1 level respectively

In his study from Uganda, Svensson (2003) also finds that for bribe-paying firms, the amount paid is positively related to current and expected future profits, and negatively related to the alternative return to capital. Since it is difficult to get reliable data on these variables for micro-enterprises, our dataset does not include the variables needed to revisit these hypotheses directly. We do, however, have data that can be sufficiently correlated with profits and alternative return, to provide at least some proximate results. In Table 4, we have used sales as a proxy for current profits, and a dummy on whether a firm invested or not in 1999-2000 as a proxy for future profits. Furthermore, since the
labour of the owner constitutes a large part of total inputs in micro-enterprises, we have two variables which address the alternative options available to the owner. One is a dummy indicating whether the owner has an alternative occupation outside his business, and the other is the educational level of the owner. As Table 4 shows, sales and investment are positively and significantly correlated to bribes paid, so to some extent there is support for Svensson’s hypothesis that the amount of bribes extracted depends on profitability. We do not, however, find as clear a relationship between outside options and bribes. While the education of the owner has the expected negative correlation with bribes, it is insignificant, and the alternative occupation is significantly positive.

Table 4. Correlations of various variables to bribes (bribe-paying firms only)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Bribe (TSh) per employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales (TSh) per employee</td>
<td>0.656***</td>
</tr>
<tr>
<td>Investment dummy</td>
<td>0.168*</td>
</tr>
<tr>
<td>Alternative occupation of owner</td>
<td>0.177**</td>
</tr>
<tr>
<td>Education of owner</td>
<td>-0.026</td>
</tr>
</tbody>
</table>

***, **, * significant at the 0.01, 0.05 and 0.1 level respectively

To what extent does the amount of bribes paid depend on the level of interaction with public officials? In contrast to Svensson’s (2003) findings from Uganda, our data from Tanzania suggests that some forms of interaction (taxation and regulations) might increase bribes paid. However, whether these relationships would hold up to multivariate regression analysis, is an open question.

4.1.2 Taxes

As Table 2 shows, firms in the service sector are consistently more concerned with tax constraints, than firms in the trade sector. This holds for all tax variables; high tax rates, tax administration, and uncertainty about tax policies. From an optimal tax theory point of view, one would expect that if the service sector is more concerned by taxes, this is due to a lesser degree of mobility. To test whether this is in fact the case, one could use the relative assets specificity of each of the industries as a proxy for the extent to which they are able to avoid taxation by shifting productive resources to a new location, or a new mode of production.

Our dataset does not include information on the assets of firms which allow us to test this explicitly. We do, however, have information on the investments made by the firms in 1999 and 2000. To the extent that there is a link between the investment flows and asset stocks, this could inform us of whether these kinds of mechanisms are behind the differences in attitudes towards taxes. Admittedly, the link between investment in any given period, and the stock of assets, need not be too strong. It is, however, the closest approximation to these issue available from our data.

By examining the correlation between investment and attitudes towards taxes, we find that across industries, firms that invest more, also see taxes as more of a problem. This correlation is not statistically significant, however. Moreover, we find that a greater proportion of firms in the service sector have made investments in the periods in question, which might help explain some of the industry differences on tax variables. So there are at least some preliminary indications that mobility or transferability is linked to perceptions of tax constraints.
4.1.3 Regulations

There do not appear to be substantial differences in the ability of trade and service industries in getting the required permits and licences for their operations. However, imports/export regulations appears to be much more of a problem for service than for trade industries. This might have to do with the nature of the business conducted by the different industries. Service industries like tour operators, insurance and fumigation, might for instance have more of a need for imported inputs than retail traders in food, which is mostly produced locally.

One would, however, expect to see differences also within the trade sector, where the products traded range from food, through building materials and motor parts, to garments. By splitting the trade sample into food and non-food trade, we do find a slightly higher incidence of import/export regulation problems in non-food trade. However, the share of firms in non-food trade that reports this to be a problem is far below that of the service industries.

4.1.4 Infrastructure

Utilities are reported to be more of a problem for service firms, than for trade firms, both in terms of utility prices and of utility quality. It is plausible that the service industries use utilities more as a direct input than most traders. For instance, a hair salon requires access to water, and enterprises with a fixed business location are more likely to rely on such inputs as electricity, whereas a food stall at the local market may to a lesser extent rely on these types of utilities.

Our data does, however, reveal an interesting paradox in the importance of utilities. In addition to data on reported problems, we also have data on whether firms would be willing to pay more in taxes to get better public services. The trade firms are in fact more willing to pay for better public services than the service firms. So even though service firms are more preoccupied with poor utilities, they seem to be less willing to pay for improvements in these types of services.

4.2 Constraints by age of the firm

Liedholm and Mead (1999) report results on the major constraints facing firms at three different stages in their development; at start-up, during periods of growth, and at the time of their survey. They find that the start-ups are considerably more constrained by access to capital, and licences and registration, than more mature firms. As firms grow and mature, access to inputs (raw materials, intermediate goods, labour) and transport become the major constraints. Variables such as taxes and total regulations, are not reported to be perceived differently across the three phases of development.

Though a precise definition of the three phases of business development applied by Liedholm and Mead appears to be lacking, we revisit their results by dividing our sample into firms that are start-ups (0-2 years), intermediate (3-7 years), and mature (more than 7 years). The most important constraints for these three categories, are reported in Table 5. The table includes all constraints that are reported to be severe by at least 50% of any age category (this corresponds fully to the constraints reported by at least 50% of all businesses surveyed).
Table 5. Constraints reported to be severe (by firm age and in total)

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Firm age (from 2000) by category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-2 years</td>
</tr>
<tr>
<td>Competition</td>
<td>83.7</td>
</tr>
<tr>
<td>Cost of raw materials</td>
<td>65.1</td>
</tr>
<tr>
<td>Other regulations (licences, permits)</td>
<td>72.1</td>
</tr>
<tr>
<td>High tax rates</td>
<td>74.4</td>
</tr>
<tr>
<td>Insufficient demand</td>
<td>48.8</td>
</tr>
<tr>
<td>Corruption</td>
<td>58.1</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td><strong>43</strong></td>
</tr>
</tbody>
</table>

As the table reveals, we find support for the result of Liedholm and Mead (1999), that regulation in terms of licences and permits, is more of a problem for younger enterprises. The same pattern is evident for import/export regulations (though the absolute proportions reporting these as a severe constraint are too low to be included in the table). We do not, however, find that access to finance is a major constraint for start-ups, nor is it more of a constraint to start-ups than to mature firms. Taxes are perceived to be a major problem for both young and old firms, but not intermediate ones, and corruption varies in a corresponding way. Finally, our results do not permit us to offer clear conclusions on the relative importance of infrastructure.

Where enterprises in different phases report different problems, this might be due to a greater representation of certain industries in each age category. To ascertain the actual impact of age on business constraints, we have controlled for sector differences among the age categories. The greater proportion of start-ups reporting other regulations as a problem appears, however, to be due to age itself, rather than differences in sector composition. Though a greater proportion of firms in the youngest age category are in the service sector, than is the case for the other two categories, there is no substantial difference between the trade and service industries in their perceptions of these regulations. When testing this relationship more carefully, regulations are found to be significantly (and negatively) correlated with age, whether or not sector dummies are included in the regressions. Our analyses therefore suggest that recently started firms do face certain regulatory problems specific to their age group. There might be several reasons for this. Some types of regulations, such as filing the initial registration papers, have to be complied with only at start-up. In addition, one would expect that an entrepreneur gains experience over the years, including experience in meeting regulatory requirements.

As for the peculiar pattern of tax and corruption constraints, this seems to be linked to differences in sector composition. The service sector is represented more heavily in the youngest and oldest age group. And since taxes and corruption are reported to be more of a problem by the service sector, this explains at least part of the pattern observed in Table 5.

4.3 Constraints by location of the firm

Liedholm and Mead (1999) distinguish between enterprises in three types of locations: Major cities, secondary cities, and rural areas. Taxes and access to inputs are reported to be bigger problems for firms in secondary cities than for those located in major cities. Regulation in general and transport are larger problems for major cities. As the line between major and secondary cities is drawn at 20,000 inhabitants, our data does not permit us to retest these results directly, since both locations
surveyed fall into the major cities category.\footnote{According to the 2002-census, the population of Moshi Urban Council is 143,799, compared to 2,487,298 in Dar es Salaam City Council, i.e. Ilala, Kinondoni and Temeke municipalities combined (URT 2003b).} By comparing responses from Dar es Salaam and Moshi, we are, however, able to give some indications of how size of a location affects perceived constraints.

Table 6 reports all constraints that are seen as severe by at least 50% of the respondents in either of the two locations surveyed. On taxation, our results are in line with Liedholm and Mead, indicating that high taxes and uncertainty about tax policies are perceived to be greater problems in smaller locations than in larger ones. Similarly, we also find regulations to matter more in larger cities. Our results for infrastructure are more mixed, however. High utility prices are more of a problem in small locations, but poor quality of utilities matters more in large locations. Corruption, a variable not studied by Liedholm and Mead, we find to be a larger problem in Dar es Salaam than in Moshi.

### Table 6. Constraints reported to be severe (by firm location and in total)

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Location of the firm</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dar es Salaam</td>
<td>Moshi</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Competition</td>
<td>85.8</td>
<td>46.2</td>
<td>79.4</td>
<td></td>
</tr>
<tr>
<td>Cost of raw materials</td>
<td>79.1</td>
<td>19.2</td>
<td>69.4</td>
<td></td>
</tr>
<tr>
<td>Other regulations (licences, permits)</td>
<td>76.9</td>
<td>19.2</td>
<td>67.5</td>
<td></td>
</tr>
<tr>
<td>High tax rates</td>
<td>64.9</td>
<td>76.9</td>
<td>66.9</td>
<td></td>
</tr>
<tr>
<td>Insufficient demand</td>
<td>66.4</td>
<td>38.5</td>
<td>61.9</td>
<td></td>
</tr>
<tr>
<td>Corruption</td>
<td>55.2</td>
<td>42.3</td>
<td>53.1</td>
<td></td>
</tr>
<tr>
<td>High utility prices</td>
<td>35.8</td>
<td>53.8</td>
<td>38.8</td>
<td></td>
</tr>
<tr>
<td>Uncertainty about tax policies</td>
<td>12.7</td>
<td>53.8</td>
<td>19.4</td>
<td></td>
</tr>
<tr>
<td><em>N</em></td>
<td>134</td>
<td>26</td>
<td>160</td>
<td></td>
</tr>
</tbody>
</table>

Again, the differences in reported constraints can be due to location in itself, or they can be due to a different sectoral composition between the two locations. Since a greater proportion of the sampled firms in Moshi are in the service sector, compared to Dar es Salaam, this indicates that at least the results on taxation might be sector-related. Nevertheless, using simple regressions, we find that the differences in sector composition do not nullify the explanatory power of location. There is a significant difference in how taxes, regulations and corruption are perceived in the two locations, whether or not sector dummies are included in the regressions.

The perception of taxes as a greater constraint on businesses in small locations might be due to a greater tax burden as public goods are financed by fewer people. It is also likely that the tax administration can more easily approach and target firms in smaller locations, compared to fast growing and crowded major cities like Dar es Salaam. We do not, however, have the data required to test these hypotheses further. The populations of smaller and more distant towns may also perceive tax unpredictability as more of a problem, due to the greater distance from the centre where the tax code is specified. As for the greater importance of regulation and corruption in Dar es Salaam, part of the explanation might be that larger cities are more complex, generating more complex rules and institutions. This added complexity also provides more opportunities for extracting bribes, and makes it harder to detect misuse of entrusted power.
4.4 Constraints by education of the owner

The educational attainment of the owner, can determine the type of business that an enterprise is in. It can, however, also influence how a firm is organized and run. Moreover, even for enterprises that are otherwise similar, perceptions of constraints to business operations may differ if the owners have a different educational background.

Our survey asked for the education level of the owner of the firm. Table 11 reports constraints perceived to be severe by at least 50% of respondents, in three categories of owner educational attainment. Taxes are consistently rated more important as the education of the owner increases, and corruption follows the same pattern. The impact of regulations varies according to the type of regulations. Hence, import/export regulations matter more the higher the education of the owner, whereas licences and permits are perceived to be more of a constraint by owners with primary and secondary education.

However, the differences in perceptions of taxation and corruption are due to differences in sector composition, and not education in itself. More educated owners are more likely to be in the service sector, which is the sector most preoccupied with taxes and corruption. Simple regressions show that once sector dummies are added, coefficients linking tax or corruption to educational attainment, become insignificant.

The same does not apply to regulations. As seen in Table 2, there is little difference in how the trade and service sectors perceive other regulations. And import/export regulations are significantly more of a problem for owners with a high level of education, whether or not we control for sector. In this case, however, it might be that the sectoral decomposition of the material is not sufficiently fine-grained. Arguably, owners with a higher degree of education are likely to be in industries within the trade or service sectors, that are more prone to import or export goods.

4.5 Constraints by gender of the owner

Female entrepreneurs are behind a substantial proportion of micro-enterprises (World Bank 2004). At the same time, it is often argued that female entrepreneurs face certain gender-specific challenges, and may be affected differently by policies to promote private sector development (Buvinic 1993; Ellis 2003). Liedholm and Mead (1999) find, however, that the principal problems facing female and male entrepreneurs are fairly similar. Female owners are somewhat more constrained by market size than male owners, and men more often cite regulations and taxes as a problem, but the differences are small.

In Table 7, we disaggregate responses according to the gender of the owner. In our material, we have data on the gender of the respondents, but not of the gender of the owner of the firm. We therefore reduce our sample to the 57 respondents who are also the owner of the firm their answers refer to. This means that we are down to only 18 female owners, which implies that any conclusions drawn here are suggestive only.

Female owners are found to be more restricted by regulations than male owners, which directly contradicts the result of Liedholm and Mead. However, we do not find any substantial difference in how taxes are perceived by male and female entrepreneurs. Corruption does not seem to affect one gender more than the other. The results for utilities are again mixed; men complain slightly more about prices, women more about quality.
Table 7. Constraints reported to be severe (by respondent-owner gender and in total)

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Respondent’s gender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td>Competition</td>
<td>69.2</td>
<td>88.9</td>
<td>75.4</td>
</tr>
<tr>
<td>High tax rates</td>
<td>71.8</td>
<td>72.2</td>
<td>71.9</td>
</tr>
<tr>
<td>Other regulations (licences, permits)</td>
<td>48.7</td>
<td>77.8</td>
<td>57.9</td>
</tr>
<tr>
<td>Cost of raw materials</td>
<td>43.6</td>
<td>72.2</td>
<td>52.6</td>
</tr>
<tr>
<td>High utility prices</td>
<td>51.3</td>
<td>44.4</td>
<td>49.1</td>
</tr>
<tr>
<td>Corruption</td>
<td>48.7</td>
<td>50.0</td>
<td>49.1</td>
</tr>
<tr>
<td>Insufficient demand</td>
<td>51.3</td>
<td>38.9</td>
<td>47.4</td>
</tr>
<tr>
<td>Poor quality of utilities</td>
<td>25.6</td>
<td>55.6</td>
<td>35.1</td>
</tr>
</tbody>
</table>

\[N = 39 \quad 18 \quad 57\]

Since there are small differences in how sectors perceive other regulations, sector composition should not matter to the result that female entrepreneurs find these more of a constraint. A simple regression controlling for sector, confirms this. This suggests that the system of business licences and permits in Tanzania, is to the relative disadvantage of women. For the other variables of interest, the differences in perceptions are either not significant, or explained by sector composition.

5. Concluding remarks

This article summarizes the findings from a survey of 160 micro enterprises in Tanzania. While acknowledging some obvious limitations of an essentially exploratory study, the survey data suggest the following results:

High tax rates, corruption, and regulation in the form of licences and permits, are found to be the most important constraints to business operations of micro enterprises. There are, however, marked differences between sectors. The service sector is relatively more concerned with taxes, corruption, infrastructure, and import/export regulations, than the trade sector. We also find that corruption is related to the other constraints. Firms that interact more with public officials in terms of regulation and infrastructure, are more likely to pay bribes. Moreover, firms that interact more with officials in terms of taxation and regulation, pay higher bribes. Further, sales and investment are positively correlated to bribes paid, indicating that the amount of bribes extracted depends on the firm’s profitability.

Reported constraints also vary according to specific firm and owner characteristics. Firms that have been started recently are more inhibited by licences and permits, than more mature firms. High tax rates and tax uncertainty is more of a problem to entrepreneurs in the small town of Moshi, while regulation and corruption are greater problems for firms in the larger city of Dar es Salaam. Business owners with a higher educational attainment appear to be more constrained by regulations, which might relate to the nature of the industry they are in. Finally, the system of licences and permits appears to be more detrimental to female than to male entrepreneurship.

According to our data, access to finance and property rights, are not deemed to be important constraints by Tanzanian micro-entrepreneurs. This suggests that policies to formalize property rights, or expand existing micro-credit schemes, do not address the binding constraints currently facing small enterprises in Tanzania. Other policies aimed at simplifying tax codes and regulatory requirements, and combating corruption, appear to be far more effective in promoting private sector development. It should be noted, however, that since our dataset includes only existing firms, and not firms that have been prevented from being started or closed down (due to e.g. financial
constraints), there is a possible selection bias here. Whether controlling for such a bias would increase the relative importance of these types of constraints, is a question our data does not permit us to address, and is thus left for future research.

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SUMMARY

This paper analyses the business environment for micro enterprises in Tanzania based on survey data. The primary objective of the study is to identify major constraints facing the firms’ business operations. Taxation, corruption, and regulations in the form of licences and permits, are found to be the most important constraints on business operations. Reported constraints vary according to firm characteristics such as age, location, education and gender of the owner. Contrary to previous studies and current policies, financial constraints and property rights are not perceived as important constraints.