SUMMARY REPORT

DRAFT FOR CONSULTATION

BANGLADESH
Economic Governance Index

A Measure of Economic Governance at the District Level

JUNE 2010

The Asia Foundation

IFC International Finance Corporation
WORLD BANK GROUP

UKaid from the Department for International Development

European Union

The Bangladesh District Economic Governance Index (2010 EGI)[1]

A Measure of Economic Governance[2] and Regulatory Policy

Summary Report
Draft for Consultation
August 2010

[1]Bangladesh's first District Economic Governance Index (2010 EGI) is a partnership between The Asia Foundation and the Bangladesh Investment Climate Fund (BICF). The Bangladesh EGI is part of the Local Economic Governance Program - Enhancing the Sustainability and Stakeholder Ownership of Investment Climate Reforms in Bangladesh. BICF is managed by IFC, in partnership with the United Kingdom's Department for International Development and the European Union.

[2]Economic governance refers to the nature and practice of economic management, regulation and development; or the institutional environment that governs economic activities.

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Abbreviations

BBS: Bangladesh Bureau of Statistics
BICF: Bangladesh Investment Climate Fund
BRRC: Bangladesh Regulatory Reform Commission
DFID: United Kingdom's Department for International Development
DI: Data International
IFC: International Finance Corporation
MSME: Micro, Small, and Medium Enterprises
TIN: Tax Identification Number
VAT: Value Added Tax
WB: World Bank

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Acknowledgements

The 2010 Bangladesh District Economic Governance Index Project is a collaborative effort between the Bangladesh Investment Climate Fund (BICF), managed by the International Finance Corporation, in partnership with the U.K. Department for International Development and the European Union, and The Asia Foundation. The field work was conducted by Data International LTD.

The process of conducting an EGI survey in Bangladesh would not have been possible without support from the Federation of Bangladesh Chambers of Commerce and Industry. The Women's Chambers and the Chambers of Commerce and Industry in Sylhet, Bogra, Rajshahi and Barisal were also invaluable to the success of the project as was the support of the mayors of these cities, local government departments and the local media.

Like other research endeavors, the 2010 EGI is the result of the collaborative efforts of many individuals. The authors of the report were Nina Merchant-Vega, Véronique Salze-Lozac'h and Farouk Chowdhury (The Asia Foundation), Dr. Sayema Haque Bidisha (Dhaka University) and Dr. Aminur Rahman (International Finance Corporation) with expert technical advice from Dr. Edmund Malesky (University of California, San Diego). Farouk Chowdhury took the lead in the analysis of the results and Nina Merchant-Vega in the design of sub-indices with significant inputs from Dr. Aminur Rahman. Technical support and research assistance were provided by Chowdhury Rashaad Shabab and Robbie Paras from The Asia Foundation. Overall supervision and advice on the 2010 EGI was provided by Véronique Salze-Lozac'h, Syed Al-Muti and Dr. Aminur Rahman.

The field research was conducted by Data International under the leadership of Dr. Najmul Hossain and A.F.M. Azizur Rahman, assisted by K. M. Shamsuzzaman.

Nancy Kelly, Kristin Colombano, and Molly Mueller, The Asia Foundation, undertook graphic design and layout.

This extensive survey would not have been possible without the dedication and hard work of the pool of field enumerators and field supervisors from Data International who toiled hard to conduct the business listing exercise and the enterprise survey. Their patience and perseverance was essential in convincing busy entrepreneurs to participate in the exercise.

Our most sincere thanks also go to the 3,812 entrepreneurs who agreed to spend their precious time to answer our questions and thereby contributed to a better understanding of their business environments.

1. Introduction

"If the government offices do not have copies of laws, regulations or circulars then how will they help us? And where would we seek help in solving our problems?" This expression of exasperation from a poultry farm owner in Rajshahi illustrates the frustration that many local business owners feel about not receiving the services and support that they expect from their local authorities.

Governments at all levels can help or hinder private sector development and economic growth through their policies and actions. They can help by improving the business climate—pursuing business-friendly policies, removing unnecessary regulations, creating business-supportive infrastructure, and providing quality public services in adequate quantities and in a timely manner. They can also hinder private sector development by not being responsive to the practical needs of the business community in terms of policies and provision of quality public goods and services.

In Bangladesh, a dynamic and healthy private sector is essential for long-term economic development. As in many developing countries, the private sector, particularly Micro, Small and Medium Enterprises (MSMEs), represents a dominant source of employment and, therefore, of poverty reduction for the population. Unfortunately, the private sector is often severely limited in its ability to grow and create jobs because of institutional barriers and constraints. Although national level policies and decisions are crucial to the country's overall economic environment, the decisions and actions taken at the sub-national level also play an important role in shaping the business environments for MSMEs. In Bangladesh, government agencies at the upazila (sub-district) and district level are the principal public interface for small business operating at local levels. Their capacity and willingness to respond to the demands of the local private sector can vary tremendously from one district to another. Accordingly, it is important to better understand how businesses interact with government at the local level and how the quality of local governance varies among districts.

It is for this purpose that the Bangladesh Investment Climate Fund (BICF) and The Asia Foundation have developed this first edition of the Bangladesh Economic Governance[3] Index (2010 BEGI). The Economic Governance Index (EGI) is a tool that helps to facilitate an understanding of government-influenced constraints to private sector development and economic growth at the sub-national level.

This first edition of Bangladesh EGI covers 19 districts, ranking them on the quality of their enabling environment for private enterprises. Based on a verifiable methodology that relies largely on the perception of the business owners, EGI provides valuable data to assist both public and private sectors in improving the local business environment.

The economic governance sub-indices that underlie the overall EGI indicate particular strengths and weaknesses within each district. The EGI thus serves as a useful guide for local officials, the private sector, and other stakeholders to compare the performance of their area with that of other localities, and identify the strengths and weaknesses of their respective business environments. The public sector can then use the EGI as a practical tool to map out an actionable policy agenda, in consultation with the private sector.

[3] In this context, economic governance refers to the complex of government initiatives—including policies, rules, and regulations, design and execution of public infrastructure, provision of public goods and services—that affect private sector growth and employment; or the nature and practice of economic management, regulation and development.

In-depth analyses of the overall EGI results and the various sub-indices in different districts will be carried out by District Public-Private Dialogue (DPPD) fora that are being established and strengthened through the Local Economic Governance Program—Enhancing the Sustainability and Stakeholder Ownership of Investment Climate Reforms in Bangladesh—implemented by The Asia Foundation with BICF funding and partnership. On the basis of this joint analysis, government officials, businesses, and other stakeholders will be better positioned to build strategic public-private partnerships that improve the enabling environment by addressing weak links and advocating for priority reforms. Districts will also be able to share good practices and lessons learned.

Although the 2010 BEGI is tailored to the country's environment and specificities, it was inspired by similar indices The Asia Foundation has conducted with various partners in other countries such as Indonesia, Vietnam, Cambodia and Sri Lanka[4].

[4] For more information on the Economic Governance Indices, including EGI reports, plus raw EGI survey results and data from some countries, please see – http://asiafoundation.org/program/overview/economic-governance-index

2. The Bangladesh EGI: Design and Methodology

2.1 A Composite Index of Ten Sub-Indices

The Bangladesh Economic Governance Index (EGI 2010) is a composite index measuring the economic governance of 19 districts[5] and ranking them against each other based on a 100-point scale. Like other Economic Governance Indices conducted in Vietnam, Indonesia, Cambodia or Sri Lanka, the Bangladesh EGI is composed of 10 sub-indices (See Box 2.1)—developed from the academic literature on economic transition and growth—that capture the key elements of the local business environment that can be influenced by district regulations and public service delivery.

The EGI scores for each sub-index are generated from a combination of "soft data" from survey questions posed to local business owners and "hard data" collected from government sources and other published materials.

These data are grouped into 10 broad sub-indices (categories), which are then assessed on a comparable 1-10 point scale. Added together, these 10 sub-indices create an un-weighted 100-point overall score for economic governance. To acknowledge the fact that some sub-indices are more important than others and to make it more relevant and useful to policy-makers, weights are statistically determined for each sub-index. This weighting is based on the correlation of each sub-index with a question on firms' plans to expand. The sub-indices that are most strongly and significantly with positive responses are given greater weight (see Appendix 1A). The overall score is then re-calculated to obtain a final weighted index.

[5] The survey was conducted in the district headquarters of each district and in a 3 km radius around each district headquarter. The results do not reflect the situation in other areas of the district. However, for the sake of convenience, in this report, we will just refer to them as "districts."

Box 2.1: The 10 EGI Sub-Indices

1. Entry costs: A measure of the time it takes to register and receive licenses to start a business and the official costs of obtaining all licenses/permits.

2. Access to land and security of tenure: A measure of the formal rights to business premises and the security of tenure once land is properly acquired.

3. Transparency: A measure of whether firms have access to the proper planning and legal documents necessary to run their business, whether those documents are equitably available, and whether new policies and laws are communicated to firms and predictably implemented.

4. Time cost of regulatory compliance: A measure of the amount of time firms spend on bureaucratic compliance and waiting periods, as well as how often firms must undergo inspections by local regulatory agencies and the duration of inspections.

5. Informal charges: A measure of how much firms pay in informal charges for firm-level operations as well as for obtaining public procurement contracts, and whether payment of those extra fees are predictable and result in the expected results or "services."

6. Participation: A measure of whether firms are informed about existing laws or consulted in the process of relevant public policy making affecting business, and whether their interests are represented in policy discussions by business associations.

7. Law and order: A measure of explicit costs incurred by firms due to property lost or stolen as a result of crime, as well as the implicit costs of preventing crime by paying security and protection money.

8. Tax administration: A measure of the administrative burden imposed by tax regulation in the district, extent of compliance and informal arrangements.

9. Dispute resolution: A measure of the confidence firms have in the fairness and equity of the legal system, their extent of use of local formal dispute resolution institutions, and the satisfaction they have in the outcomes of formal and informal modes of dispute resolution in the area.

10. Local infrastructure: A measure of the quantity and quality of local infrastructure (managed locally and centrally).

Table 2.1: EGI Districts			
Barisal	Dinajpur	Kushtia	Rajshahi
Bogra	Dhaka	Mymensigh	Rangpur
Comilla	Faridpur	Noakhali	Sylhet
Chittagong	Jessore	Pabna	Tangail
Cox's Bazar	Khulna	Patuakhali	

Another important aspect of the Economic Governance Index is that the ranking of districts is based on how these districts perform relative to each other, within the country. Therefore, the scores are not comparable to scores in other countries or to an idealized, external measure of governance. Rather, the sub-indices should be viewed as measures of comparative achievement of districts in the Bangladeshi context. For a more detailed explanation of the complete diagnostic and indexing methodology, see Appendix 1.A of this report.

2.2 Choosing the 19 EGI Districts

As Table 2.1 above shows, the 2010 BEGI covered the headquarters of 19 districts throughout the country, including four districts where BICF and The Asia Foundation currently implement activities and facilitate Public-Private Dialogues —Barisal, Bogra, Rajshahi and Sylhet.

The other districts were selected to ensure that the survey would cover the 19 district headquarters which are the largest urban centers in the country. These 19 districts are the most important districts from a political point of view, have better developed infrastructure compared to the other 45 districts (there are 64 in total) and house many regional offices of the Central Government. The survey was conducted mainly in the city corporation or municipal area in each of the district headquarters and within a 3KM radius around the city. For more information on how districts were chosen for the BICF-TAF Public Private Dialogue and the 2010 BEGI see Appendix 1.B.

Figure 2.1:
Map of Bangladesh with 19 EGI Districts

2.3 The EGI Research Strategy

The 2010 EGI is based primarily on a firm-level survey administered from October 2009-January 2010 in the 19 EGI districts. Sophisticated business listing, sampling and weighting techniques were used to ensure that the survey accurately represented the conditions in those districts.

The research strategy consisted of three main steps: First a listing of enterprises (similar to a census) was conducted to obtain a district-level sampling frame for the survey. A stratified random sample was then drawn from this listing. Second, face-to-face interviews were conducted with sampled business owners to capture their perceptions and experiences of doing business in their district. Third, the findings from interviews, focus group discussions and published data were assembled to complement the perception survey.

2.3.1 EGI Survey Instrument

A survey instrument was developed to ask firms their perceptions of their business environment and experience in doing business at the district level, in ten key areas of economic governance outlined in the sub-indices. The instrument also asked general questions about the firms and some detailed questions on firm finance.

2.3.2 Survey Sampling

Using the sampling frame from the business listing, a stratified random district-level sample of 3,800 firms (200 per district HQ) was drawn. The strata were based on sector (manufacturing, trade and services) and size (number of employees). Since the EGI analysis is focused on growth-oriented firms, rather than subsistence firms, only firms with at least 3 employees were included in the survey.

In addition, the research team found that using a straightforward stratified random sampling methodology would yield too few medium and large firms in the sample, making statistical confidence in their answers unreliable. Therefore, the team devised a strategy to over-sample such firms for the survey. Since large and medium firms were intentionally over-sampled in the survey, it was necessary to use sampling weights, calculated from the listing data to reweight the raw survey data back to its district sampling breakdowns (Appendix 1.D).

2.3.3 Secondary Data

In addition to primary survey data, the EGI exercise also uses secondary data from a number of sources. The secondary data includes information on local taxes and user charges, infrastructure data, as well as macroeconomic data.

3. The Listing: A Profile of Bangladeshi Firms across Districts

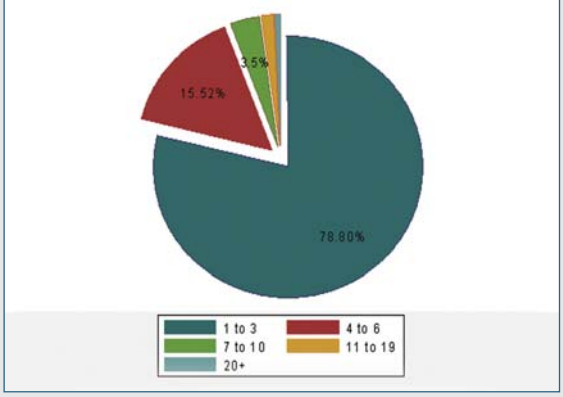
The credibility of the Economic Governance Index lies not only on the construction of the indices but also in the manner by which the sample of firms was selected. The 3,800 business owners interviewed for this survey were selected from a listing of 55,736 MSMEs. In order to select a reliable, representative sample of firms, the EGI research team conducted a business listing exercise (similar to a census) of enterprises in selected localities of business concentration in the urban headquarters of the 19 selected districts, through a cluster sampling method called Probability Proportional to Size (PPS). The survey respondents were then chosen from this listing, according to size and sector, through stratified random sampling (See Appendix 1.C for a detailed description of the business listing methodology).

This section provides a general overview of the larger population of enterprises in the 19 EGI districts, based on key information collected from the listing exercise.

3.1 Dominance of Micro-Enterprises

One of the most interesting features of Bangladeshi enterprises is the overwhelming presence of small firms.

Figure 3.1 Distribution of Enterprises by Number of Employees



Nearly 79% of the businesses have a maximum of 3 employees in addition to the owner of the firm, and 16% of the firms have 4 to 6 employees (Figure 3.1). More than 97% of Bangladeshi enterprises employ less than 10 workers, which are defined as micro-enterprises by the Bangladesh Bureau of Statistics. The findings of the listing reveal that less than 1% firms have 20 or more employees. The listing clearly highlights the disproportionate presence of small enterprises in the country.

3.2 Dominance of Commercial Activities

As shown in Table 3.2, nearly 70% of the firms covered by the listing are concentrated in wholesale and retail trade activities. Except for a negligible percentage of firms engaged in agriculture, the remaining 30% firms are concentrated in manufacturing or service oriented businesses.

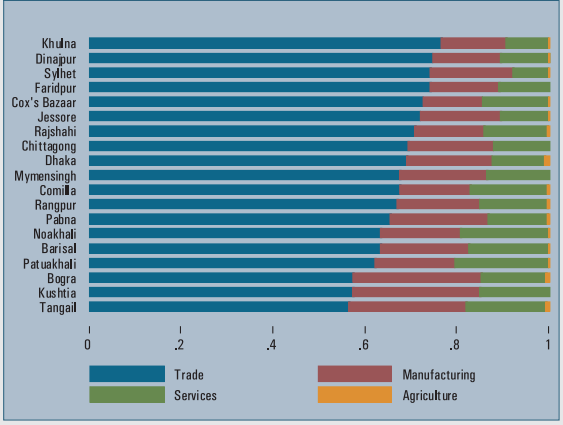
Table 3.2: Breakdown of Firms by Sector

Sector	Number	Percentage
Services	7,294	13.09%
Manufacturing	9,748	17.49%
Trade	38,610	69.27%
Agriculture	84	0.15%
Total	55,736	100.00%

In addition, although the trade sector dominates throughout Bangladesh, there is considerable variation in sector breakdowns by district. As Figure 3.2 illustrates, larger cities like Khulna and Sylhet have a larger share of

trade firms while the smaller district towns of Kushtia and Tangail have larger percentages of manufacturing and services. While this makes sense because these cities are densely populated, more expensive and may lack the industrial land and facilities for large scale manufacturing, it is important to note that making generalizations about sector breakdowns based on town size is difficult because it is not the only factor that determines sector distribution.

Figure 3.2: Distribution by Sector and District[6]



3.3 Disappointingly Low Number of Women Entrepreneurs

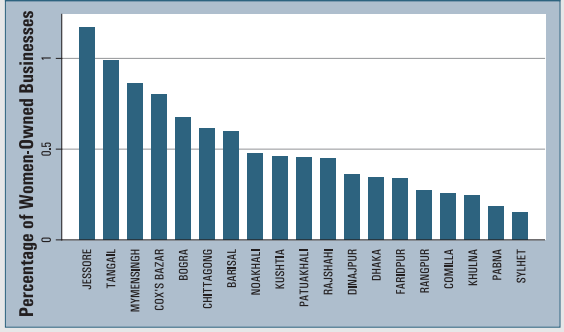
Less than one half of one percent of firms covered by the listing are owned by women (Table 3.3). Even the capital city of Dhaka, which has the greatest presence of educated, working women, is not an exception in this regard. Apart from Jessore (1.17% female owned firms), all other district towns less have less than 1% of firm ownership by women. Furthermore, there is significant variation in the proportion of female owners across districts as Figure 3.3 depicts. In the most extreme case,

Table 3.3: Female-Owned Firms

Gender	Total Number of Firms	Percentage
Male	55,477	99.54%
Female	259	0.46%
Total	55,736	100%

the proportion of female ownership is more than six times higher in Jessore than in Sylhet. More gender-focused research is required to better understand the multiple barriers to female business ownership in Bangladesh.

Figure 3.3: Ratio of Female-Owned Firms by District



3.4 Prevalence of Young Enterprises

Bangladeshi MSMEs are relatively young and nearly half of the enterprises covered by the listing were established in the last 4 years (2006 to 2009). Just over one-tenth of the enterprises (11.5%) are older than 20 years. Given the recent trend of steady industrialization in the country, this finding is not unexpected.[7]

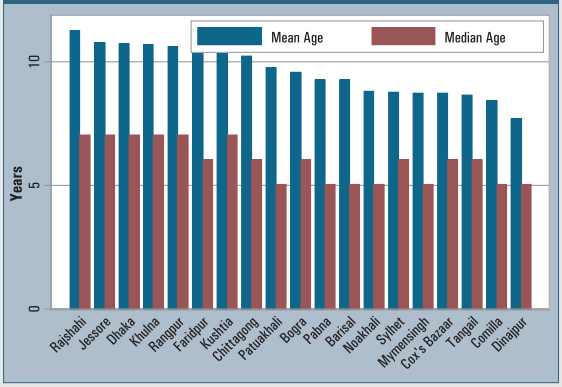
Firms have an average age of 9 years, but average firm age varies considerably across districts (Figure 3.4).

[6] The term agriculture covers firms engaged in growing of crops, market gardening, horticulture, growing of vegetables, horticulture specialties, nursery, farming of cattle, goat dairy farming and (d) animal farming, production of animal products etc. This percentage represents small farmers selling their products in the city. These activities are not the focus of this study and were excluded from the sampling pool for the survey.

[7] From FY90 to FY09 share of manufacturing sector to GDP has increased from 15.4% % to 17.8%

This high rate of young enterprises has important implications. On one hand, a high number of new firms might be interpreted as a reflection of business dynamism and could indicate an improved business environment. On the other hand, and in view of the very small size of enterprises in Bangladesh, it might also reflect a high enterprise turnover rate (a high rate of creation and destruction of firms) related to a difficult business environment. In terms of implications for the economy, a large number of micro and young enterprises indicates lower capacity to invest and grow. Most of these enterprises remain at survival level only, are very vulnerable to external shocks, and have a very low capacity for investment and productivity, which constrains their ability to increase employment and foster stability.

Figure 3.4: Mean and Median Firm Age by District



3.5 Presence of a Large Number of Unregistered Firms

The large number of MSMEs created in the last 3 to 4 years may have contributed to a large number of unregistered firms. The listing data reveals that almost one-fifth (19%) of the enterprises covered by the listing do not have any trade license, VAT certificate or TIN certificate[8].

[8] TIN: Tax Identification Number – VAT: Value Added Tax.

This finding indicates a lack of formalization of MSMEs in Bangladesh.

The most common type of registration in Bangladesh is the trade license. However, despite the fact that all firms are required to possess trade licenses for their operation, 19% of the firms listed do not have one. Many of the enterprises covered by the listing have neither TIN nor VAT registration certificates. VAT and TIN registrations were obtained by only 32% and 30% of firms respectively. Fewer than 1 out of 4 firms (23%) had completed all three of these basic kinds of registration (Figure 3.6).

Figure 3.5: Registration Status of Firms

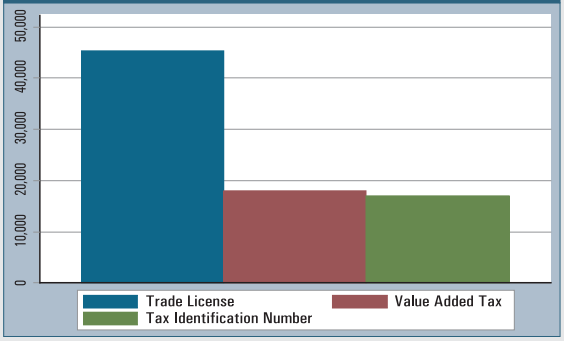


Figure 3.6: Firm Registrations by Type

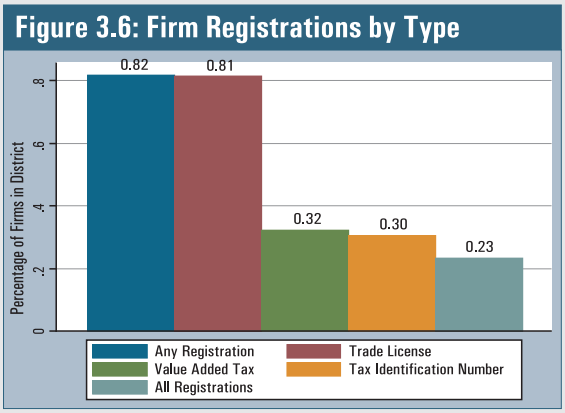


Figure 3.7: Registration Status by Size

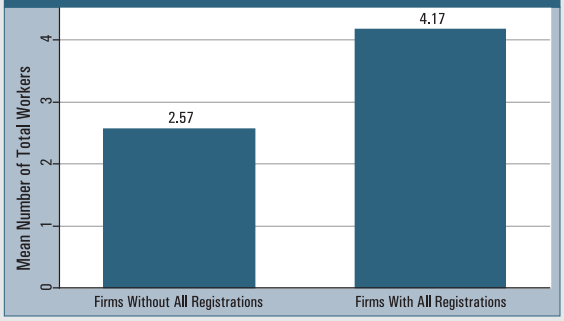
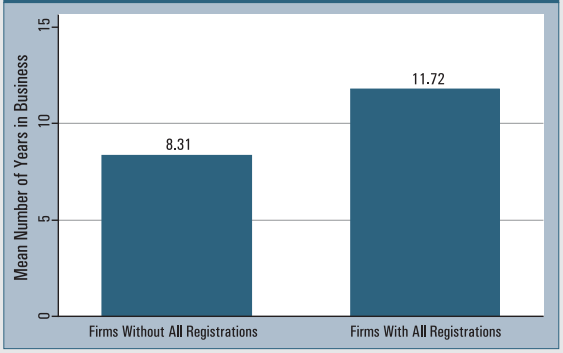


Figure 3.8: Registration Status by Age

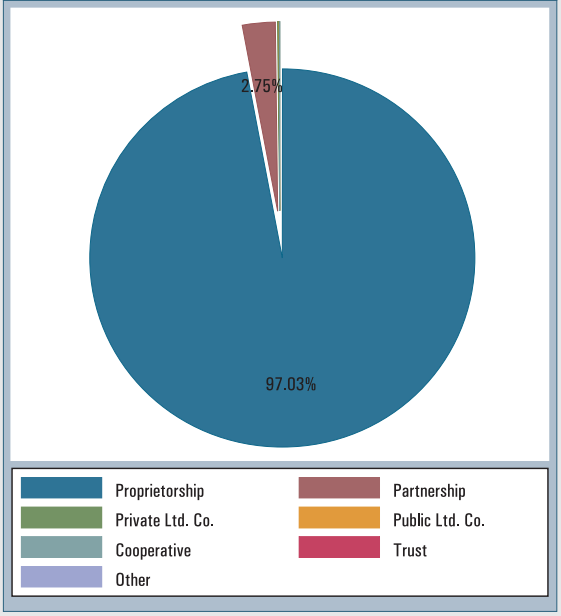


The data shows that registration is correlated with firms' age and size (Figures 3.7 and 3.8). Firms that have acquired all three types of registration are bigger on average (4.2 employees) and have a higher average age (11.7 years) than firms that had not (2.6 employees and 8.3 years). Firms that have at least one type of registration are on average 9.8 years old with 3.2 employees, while firms with no registration are on average 6 years old with 1.9 employees. A similar pattern holds for firms acquiring any registration.

3.6 Clear Dominance of Proprietorship

In terms of legal status, the Bangladeshi business community is quite homogenous, with nearly all MSMEs being sole proprietorships. Less than 3% of the firms operate under a different status such as partnership (the second most used status), private limited companies, public limited companies, cooperatives or trusts (Figure 3.9).

Figure 3.9: Firms Legal Status



In summary, Bangladesh's private sector is dominated by young, micro enterprises, owned or managed by men, and engaged mainly in commercial activities. The information gathered through this exercise has several important implications. It shows a dynamic entrepreneurial activity, illustrated by the large number of young enterprises. This might be interpreted as indicating relatively high business confidence and supportive business environments. However, the prevalence of micro enterprises with no more than three employees that are unregistered and concentrated in trade related activities is more symptomatic of a narrow and weak base of formal industrialization. In addition, the dearth of women entrepreneurs in Bangladeshi MSMEs is a worrisome sign in terms of both the business environment and women's opportunities. It is therefore important to understand in greater detail the impediments as well as facilities of conducting business in Bangladesh.

4. The 2010 EGI Rankings: Explanation and Analysis

4.1. Overall Rankings

Figure 4.1 and Table 4.1 present the overall results of the 2010 BEGI. This is the sum of the district scores on all 10 weighed sub-indices[9]. Since 10 points are possible for each sub-index and the sub-index weightings add up to 100, the final rankings are on a 100-point scale. To achieve a perfect score, a district would need to have the highest score on each sub-index. Faridpur, Dinajpur and Kushtia are top-ranked and can be considered as the best performing districts in Bangladesh in terms of business environment.

It is important to remember that the rankings are relative and based on the best practices in Bangladesh, not against an arbitrary, external or idealized standard. In addition, since districts can receive similar scores (often within 1 point), it is more useful to interpret the results in terms of "tiers" rather than just the standard rankings. These tiers are created from the natural "breaks" in the overall index based on point scores. For example, Faridpur, Dinajpur and Kushtia form the "High" tier comprising scores from 75.7-73.3, which naturally breaks from the "Medium-High" tier comprising scores from 69.2-66.1 (Sylhet, Cox's Bazar, Mymensingh and Comilla). Each tier comprises a group of districts that are within approximately 3 points of each other. The "Medium-Low" tier comprises 8 districts, all with scores within 3 points of each other, so we can think of them as having similar economic governance conditions overall.

While there are clear "High" and "Low" performers on the overall index, approximately 42% of firms in the EGI are tightly clustered within a 3-point range (60.3-57.1) in the "Medium-Low" tier, indicating that with little effort, these districts could climb quickly up the rankings in future surveys.

[9] See Appendix 1A for weighting procedures. Also see Appendix 2A for Unweighted Overall EGI scores.

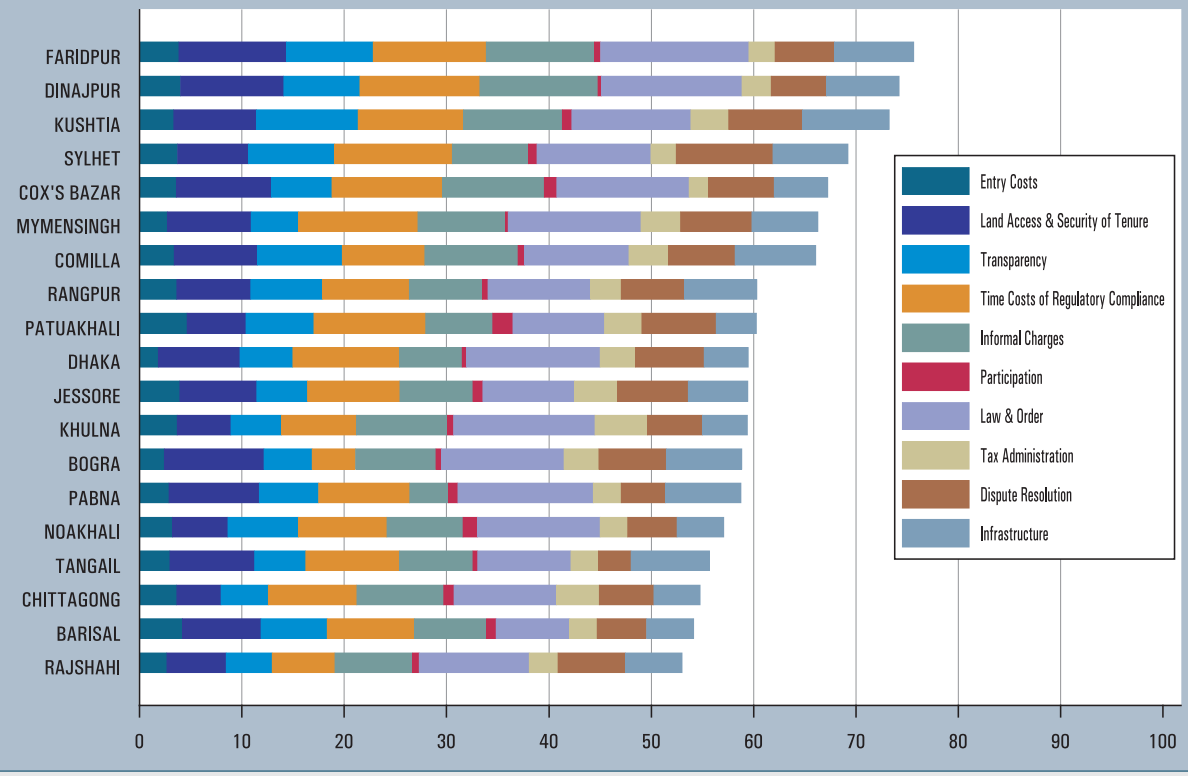
Table 4.1: EGI Rankings and Tiers

DISTRICT	SCORE	TIER
FARIDPUR	75.68	High
DINAJPUR	74.25	High
KUSHTIA	73.27	High
SYLHET	69.23	Medium-High
COX'S BAZAR	67.26	Medium-High
MYMENSINGH	66.30	Medium-High
COMILLA	66.10	Medium-High
RANGPUR	60.34	Medium-Low
PATUAKHALI	60.30	Medium-Low
DHAKA	59.51	Medium-Low
JESSORE	59.47	Medium-Low
KHULNA	59.43	Medium-Low
BOGRA	58.89	Medium-Low
PABNA	58.80	Medium-Low
NOAKHALI	57.13	Medium-Low
TANGAIL	55.71	Low
CHITTAGONG	54.79	Low
BARISAL	54.15	Low
RAJSHAHI	53.02	Low

4.2 Consistency in Rankings

As noted, within the overall rankings there are distinct tiers. The results suggest that the districts on these tiers are performing consistently across the majority of sub-indices. Appendix 2.C shows the rankings of the districts relative to one another across each of the sub-indices. They are ranked with the highest scorer at the top and the lowest at the bottom and broken into 4 quartiles. Using this table, it is simple to identify districts which consistently performed well and those

Figure 4.1 EGI 2010 Overall Rankings



Box 4.1 Consistent Good Performers

- **Faridpur** was placed in Quartile 1 seven times. It did not appear Quartile 2. Faridpur placed in the Quartile 3 three times and was never in Quartile 4.
- **Dinajpur** placed in Quartile 1 six times. It placed in Quartile 2 twice and once in each of Quartiles 3 and 4.
- **Kushtia** appeared 4 times in Quartile 1 and 5 times in Quartile 2. It was in Quartile 3 only once and never in Quartile 4.

Box 4.2 Consistent Poor Performers

- **Rajshahi** failed to appear in Quartile 1. It appeared three times in Quartiles 2 and 3, and four times in Quartile 4.
- **Barisal** appeared once in Quartile 1, twice in Quartile 2, three times in Quartile 3 and four times in Quartile 4.
- **Chittagong** appeared twice in each of the Quartiles 1 and 2. It appeared three times in each of Quartiles 3 and 4.
- **Tangail** appeared once in Quartile 1, twice in Quartile 2, three times in Quartiles 3 and four times in Quartile 4.

that consistently performed poorly. The consistent top performers were Faridpur, Dinajpur and Kushtia. These three districts constituted approximately 16% of the districts surveyed, but accounted for 42% of the places in the top quartiles and only 0.25% of the places in the bottom quartiles.

Rajshahi. Barisal, Chittagong and Tangail comprised the consistent poor performers. These districts made up about 21% of the districts surveyed. However they account for 37% of the districts in the bottom tier and only constitute 1% of those in the top tier.

4.3. The Special Case of Dhaka

Among the high and low performers, the capital city of Dhaka represents a special case. As Appendix 2.A shows, Dhaka ranks a relatively low 16 on the unweighted index. However, on the final weighted index, Dhaka ranks in 10th place (Appendix 2.B). The primary reason for this result is that Dhaka scored relatively well on the most highly weighted sub-indices in the overall weighted index. For example, Dhaka scored in the top quartile of districts on the Law and Order sub-index, which accounted for 15% of the weighted overall sub-index. It also scored in the second quartile on Transparency, which accounted for 12.5% of the weighted index, and Dispute Resolution and Land Access, each of which accounted for 10.5% of the index. On the other hand, many of its lowest scores were on low-weighted sub-indices such as Entry Costs (5.5% of weighted index) and Participation (2.5% of weighted index).

Thus, comparing the overall weighted and unweighted indices highlights the fact while Dhaka is struggling overall, it is doing relatively well in some of the most important areas of economic governance.

However, Dhaka did score poorly on two important and heavily weighted sub-indices—Infrastructure (10.5% of weighted index) and Informal Charges (15% of weighted index). To some extent the Infrastructure sub-index ranking is a direct result of Dhaka's urbanization and population density. As the largest city in Bangladesh, and the center of economic and political activity in the country, it has the greatest infrastructure needs and faces enormous challenges in meeting them. This problem extends to other large cities in Bangladesh as well, as evidenced by the similarly low rankings obtained by Chittagong and Khulna on the Infrastructure sub-index.

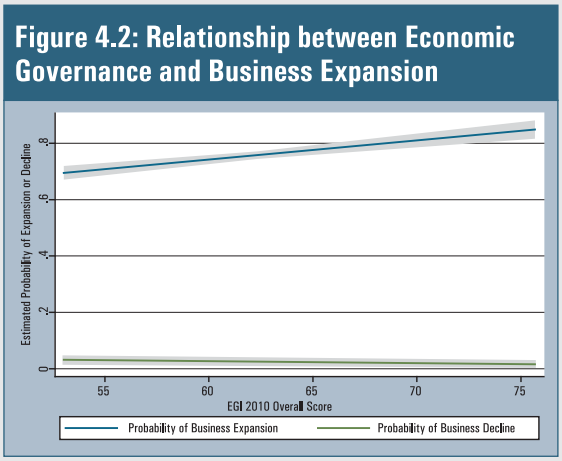
However, Dhaka's poor Informal Charges sub-index score cannot be explained by urbanization alone, indicating that governance issues are at the heart of Dhaka's low ranking. Indeed, approximately 76% of firms in Dhaka, the most of any district, reported having to pay bribes in their line of work. For the foreseeable future Dhaka will remain the mainstay of the Bangladeshi economy with the most investment activity, the largest share of business activity, and the most educated population. By continuing and intensifying efforts to improve its business environment Dhaka could play a more dynamic role in economic growth and take full advantage of its position as the nation's leading city.

4.4 Relationship between Economic Governance and Business Expansion

All Bangladeshi districts have an incentive to improve their local business environments to create conditions for business expansion, economic development and overall growth.

Figure 4.2 below shows the relationship between economic governance, measured by the 2010 EGI and the probability of business expansion or decline. The blue line shows that the estimated probability of business expansion is associated with increases in the overall index scores. In fact, a 10-point increase in the overall index (roughly the difference between Sylhet and Khulna) is associated with a 6% increase in the probability that a business will expand.

Figure 4.2: Relationship between Economic Governance and Business Expansion



5. Results by Sub-Index

5.1 Entry Costs: Entry Cost Reform

The reform of the business entry processes is the critical first step towards improving the business environment and promoting a healthy private sector. In Bangladesh, entry costs represent a severe barrier for firms seeking entry into the formal business arena. The 2010 *Doing Business* Report ranks Bangladesh 119 out of 180 countries on "Ease of Starting a Business", a 5-point decline from the 2009 ranking of 114[10]. Administrative and bureaucratic complexities as well as lengthy government procedures have made the process of setting up businesses cumbersome, expensive and time-consuming.

Since business entry costs represent monetary as well as time costs to entrepreneurs, the Entry Costs sub-index reflects true "opportunity cost" and incorporates both dimensions. The former costs reflect the price of acquiring essential legal documents for setting up a business; the latter is associated with the time required to obtain all such documents. The Entry Cost sub-index is divided into these two dimensions and includes seven indicators (See Appendix 3).

The final results for the Entry Costs Sub-Index are shown below in Figure: 5.1 with longer bars indicating lower entry costs (See Appendix 1.A for rescaling equations). Two Barisal division districts, Patuakhali (8.47) and Barisal (7.61) received the highest sub-index scores. Dhaka (3.36) received the lowest score, right after the Western district of Bogra (4.39). The survey data statistics (Appendix 5) show that firms in Patuakhali and the South-Western district of Faridpur have the lowest median time costs, with neither district making firms wait more than 3 days for a trade license, TIN certificate or VAT certificate. The lowest ranked districts in terms of the Time Cost Dimension are the Western districts of Kushtia and Bogra with both districts making the median firm wait 15 days and 20 days respectively for a TIN certificate.

As for Monetary Costs, firms of the Western district of Jessore reported incurring the lowest expenses with median fees of 200 Taka for a trade license, 160 Taka for a TIN certificate and 1200 Taka for a VAT certificate. While second- and third-ranked Barisal and Patuakhali both have marginally higher trade license and TIN certificate fees, they also have significantly lower VAT certificate fees at 350 and 500 Taka, respectively. Firms in Dhaka face the most monetary costs paying 1000 Taka for a trade license, 2200 Taka for a TIN certificate and 2400 for a VAT certificate. Mymensingh fares only slightly better with firms paying only 400 Taka for a trade license, but also paying over 2000 Taka for a TIN certificate and 2400 for a VAT certificate.

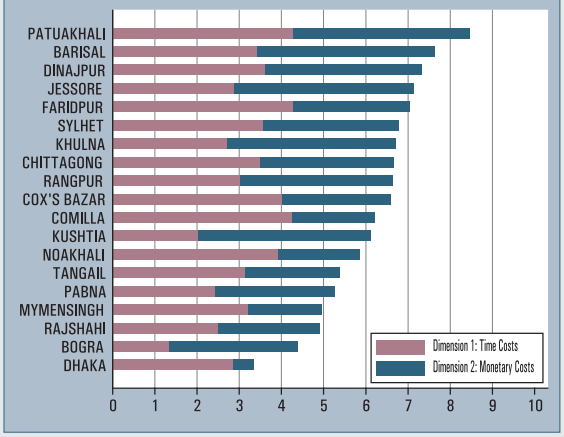
In relative terms, Patuakhali's experience across both dimensions highlights the fact that firms in this district face weaker barriers to entry.

In Dhaka, firms must pay very high entry fees while experiencing relatively low wait times. This may reflect firms' higher willingness to pay middle men to help obtain business licenses (which is reflected in higher trade license fees, as many firms do not separate the fee for the license and the fee for the middle man) in a large city like Dhaka in order to save time. Ironically, such firms may just be paying for the middleman, as wait times in Dhaka are relatively low for the median firm.

Improving registration and licensing in terms of costs, time and user-friendliness is an area where district authorities could easily have some significant impact. It is also an area where best practices could easily be shared among districts for quick results.

[10] World Bank Group, Doing Business 2010: Reforming Through Difficult Times. Palgrave Macmillan, September 2009.

Figure 5.1: Entry Costs Sub-Index 2010



5.2 Land Access and Security of Tenure: Improved Land Access and Security of Tenure are Key to Economic Confidence

Land access and land tenure refer the ease of obtaining and securing property. These are important for businesses not only because they reduce the prospective risk of doing business, but also because they are often related to access to financial services or commercial transactions.

As one of the most densely populated countries in the world with nearly 1200 citizens per square kilometer, Bangladesh has ongoing problems regarding access to land and land tenure. For entrepreneurs, particularly in urban areas, land scarcity is reaching almost crisis levels. According to a 2007 study[11], Dhaka has seen an unprecedented rise in land prices in recent years. While this undoubtedly has to do with the pace of development in the capital, an outdated land record system and difficult land transfer procedures have also contributed to the problem. The study highlighted that there were entire wards of the city where there were almost no recent land transactions because of this confluence of factors.

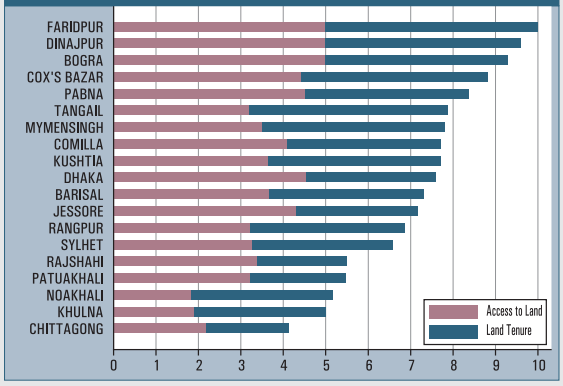
[11] Ishrat, I., Mitra, S. K., Sholiag, M. A. N and Rahman, M. A. (2007) *Land Price in Dhaka City: Distribution, Characteristics and Trend of Change,* Urbanisation in Bangladesh: Pattern, Issues and Challenges, Jahan, S. and Maniruzzaman, K. M. (ed.), Bangladesh Institute of Planners.

In addition, security of land tenure is important for entrepreneurs to leverage their land investments. As Hernando de Soto's seminal work on property rights and land titling (1989, 2000) has highlighted, legal and secure property rights can encourage individuals and firms to increase investments in fixed assets by using land titles to obtain capital.

For firms seeking to buy land or expand existing spaces, land scarcity and insecure tenure represents a hard constraint on their growth. For firms that rent land, it can drive up rental costs and incite fear that they could be dropped from their leases if other tenants are willing to pay more in rent. Taking these various constraints into account, the Land Access and Security of Tenure sub-index (Appendix 3) encompasses these two important dimensions of property rights across four indicators.

Figure 5.2 below shows the results of the sub-index. As the data in Appendix 5 shows, Faridpur (10) received a perfect score across both dimensions. On the first dimension 100% of land owners in Faridpur say they have a registered dalil, which is the single most important document of land ownership in Bangladesh. In addition, no firms reported that dalils were difficult to obtain or that there was high expropriation risk. On the second dimension less than 2% of renting firms report that there was high rental expropriation risk. Dinajpur (9.6) with similar results, scored a close second, only differing on rental expropriation risk in which 12% of firms reported that they felt rental expropriation risk was high.

Figure 5.2: Land Access and Land Tenure Sub-Index



On the other end of the spectrum, Chittagong (4.1), fared poorly across both dimensions, with only 86% of firm owners reporting they had a registered dalil, 49% of firm land owners reporting that it was difficult to get a dalil registered and 23% of renters reporting that rental expropriation risk was high. Khulna (5.0), the penultimate district, also received relatively low score across all dimensions, with the lowest number of land owners reporting that they had registered dalils (75%). These scores likely reflect the problems in the housing market in large, highly urbanized areas like Chittagong and Khulna, which claim higher land prices and more competition for land. It also may reflect a lack of administrative resources to get dalils registered in a timely manner.

5.3 Transparency: Information is Instrumental to Economic Freedom and Trade

It has long been known that efficient and equitable functioning of markets depends heavily on the transparent flow of information. However, in many developing countries, basic information on the laws and regulations governing businesses is often unclear and difficult to obtain, making firms vulnerable to operating outside of the law.

Experience in facilitating Public-Private Dialogues in Bangladesh has shown that access to information about business regulations is often mentioned by the business owners as one of their top recommendations to improve economic governance. Improved access to legal information is very often the easiest and fastest way for local authorities to improve their business environments without making huge investments or engaging in major reforms.

In the Bangladeshi context, asymmetric information can result in market failure and lead to distributive inefficiency.[12] For MSMEs, the absence of transparency makes it difficult for new firms to enter into business, imposes additional expenses on the existing firms and might encourage unfair practices within industry. Ensuring greater transparency through access to official documents and through greater predictability and consistency in upcoming policies and regulations is a pre-requisite for good economic governance.

The Transparency sub-index not only examines access to information but also looks at the predictability and consistency of regulations (See Appendix 3). Dimension 1 deals with ease and equity of obtaining information while Dimension 2, measures the predictability and consistency of laws and policies. Dimension 3 is an independent observation of the ease of obtaining information from three government offices. Rather than relying solely on firms' perceptions of transparency, the research team traveled to all 19 districts, and posing as entrepreneurs trying to start a business, attempted to obtain applications and information about registration from the Trade License Office and about taxes from the Tax Office and the VAT office.

Figure 5.3 shows the results of the full Transparency sub-index, The Western district of Kushtia (7.92) obtained the clear first place ranking, with South-Western district of Faridpur (6.76), and the North-Eastern district of Sylhet (6.72) in second and third places, respectively.

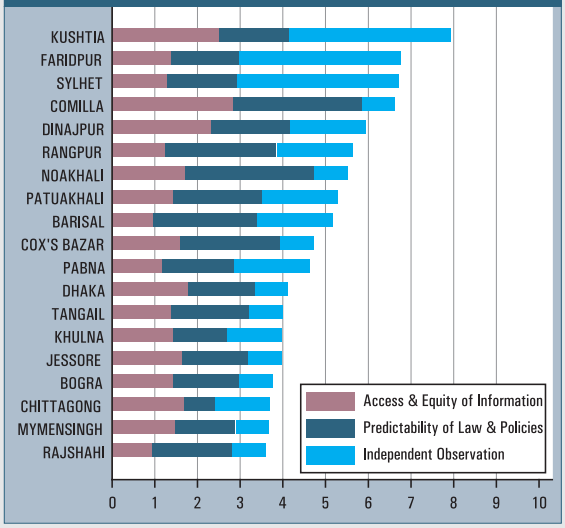
Kushtia scored very high on Dimension 1 with a nearly 61% access to documents rating and more than 50% of firms indicating that they were well informed. However, the district did not score well on Dimension 2, where firms were affected by the changes in laws but were not able to predict these changes well. Thus, Kushtia's poor performance in terms of predictability and consistency was compensated for by its greater accessibility scores. Second- and third- ranked Faridpur and Sylhet scored high on the independent observation dimension, each receiving scores of 4 for trade license offices, while performing average in terms of the other two dimensions.

Among the poorest performing districts were Chittagong, (3.69) Mymensingh (3.66) and Rajshahi (3.60).

[12] Florini, Anne M. (1999) *Does the Invisible Hand Need a Transparent Glove?* The Politics of Transparency. Paper prepared for the Annual World Bank Conference on Development Economics, Washington, D.C., April 28-30, 1999.

Rajshahi's low score was driven mainly by the difficulty faced by its firms in accessing documents and its high percentage of firms (32%) that feel that they need relationships with government officials to obtain information. It should be noted that the seven lowest-ranking district scores were all within 1 point interval (between 4 and 3) reflecting that the lack of transparency in doing business is common to many localities in Bangladesh. This indicates that a plurality of districts needs to improve their transparency and access to information across the spectrum of dimensions.

Figure 5.3: Transparency Sub-Index



5.4 Time Costs of Regulatory Compliance: Simplified Paperwork Means More Time for Business and Less Costs for the Public Sector

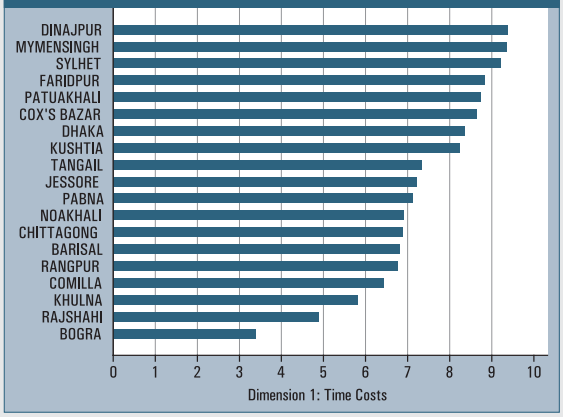
The role of the public sector at the national and the local level is to ensure that rules and regulations are implemented and followed.

In many countries, however, complicated, bureaucratic business regulations have multiplied over the years, creating situations in which the time cost of regulatory compliance has become unbearable for local MSMEs and are a major constraint for business development.

Across Bangladesh, entrepreneurs face an array of bureaucratic transaction costs that represent significant opportunity costs in terms of time. While businesses everywhere must spend a reasonable amount of time complying with necessary regulations, burdensome policies can cost a firm in terms of lost management time, human and financial resources and sales. In 2007, the Bangladesh Business Environment and Enterprise Performance Survey (BEEPs) survey reported that Bangladeshi senior managers spend 3.2% of their time dealing with government regulations. While this is lower than the total average of 8.6% across a number of developing countries, it is much higher than Asian regional leaders such as Thailand where senior managers spend less than half a percent (0.49%) of their time dealing with government regulations. Increased time on regulatory compliance is more likely to affect SME owners who cannot easily delegate such tasks.

The Time Cost of Regulatory Compliance sub-index has one dimension comprised of three indicators highlighting the time cost associated with two of the most common types of regulatory compliance, and capturing a general picture of this administrative cost (Appendix 3).

Figure 5.4: Time Cost of Regulatory Compliance Sub-Index



As Figure 5.4 shows the top three performers on the Time Cost of Regulatory Compliance-Dinajpur (9.38), Mymensingh (9.35) and Sylhet (9.21)-have very close scores. As Appendix 5 illustrates all of these districts reported having less than 2% of firms spend more than 15 days on regulatory compliance and none of them reported spending more than 25 days to obtain a registered dalil. The median number of minutes it takes to complete a VAT inspection is relatively similar across districts, grouped around the national median of 10 minutes. This means that in most of the districts, not only is the time it takes to get a VAT inspection short (10 minutes), but that it is also fairly predictable across firms.

The lowest ranking district, Bogra (3.4), was driven by a very high median waiting time to get a dalil registered (365 days). In addition, more than 10% of firms in Bogra spend more than 15 days on regulatory compliance. Both of these factors deteriorated Bogra's position on the sub-index and its score is nearly a full point lower than the second lowest ranking district, Rajshahi (4.9).

5.5 Informal Charges: Adding Costs to Costs

In developing countries like Bangladesh, the real cost of doing business is often several times higher than the official documented costs associated with the operation and administration of businesses. This cost includes not only expenses in the form of time costs devoted to various bureaucratic procedures, but also bribes and other forms of informal payments. Such informal payments discourage potential entrepreneurs, negatively affect the functioning and profitability of existing businesses and distort incentives for both groups of entrepreneurs.

Corruption is often cited as one of the biggest obstacles for the development of the manufacturing sector of Bangladesh[13]. Corruption faced by MSMEs most often arises in the form of offering bribes and gifts to government officials or political parties to obtain required documents or to win contracts for public projects.

The Informal Charge sub-index is comprised of two variants of corruption across seven indicators (Appendix 3) Dimension 1 examines firm-level corruption, while Dimension 2 studies systemic corruption in the overall business environment.

As shown in Figure 5.5, Dinajpur (7.96) scored the highest followed by Faridpur (7.07). Dinajpur's performance was driven by its high score in Dimension 1. Only 28% of Dinajpur's firms reported that informal payments occur in their line of business, significantly below the median among all districts of 60%. In addition, almost all of the business enterprises in Dinajpur claim to know about the amount of such payment and most of the firms said they received the service with payment (96%). Not only is the extent of corruption in Dinajpur low, but the predictability is very high, indicating that the corruption that does occur is at least efficient.

In Dimension 2, the experience of Dinajpur is rather mixed, with all firms indicating that they think that the public procurement process is unfair, but also stating that they do not think that personal connections with government officials or parties are important or very important to procure public contracts. While this finding is curious, upon reexamining the raw survey data, it was found that although no firms indicated such connections were important or very important in public procurement, 58% of firms in the district believed connections with government officials were moderately important and 42% of firms believed that connections with political parties were moderately important. Thus, while firms in Dinajpur do not indicate that firm connections are strongly important, they do believe that these connections are moderately important in being able to win public procurement contracts.

Due to these mixed results in Dinajpur, Faridpur scored the best on Dimension 2. In comparison to other districts, firms in Faridpur attach less importance

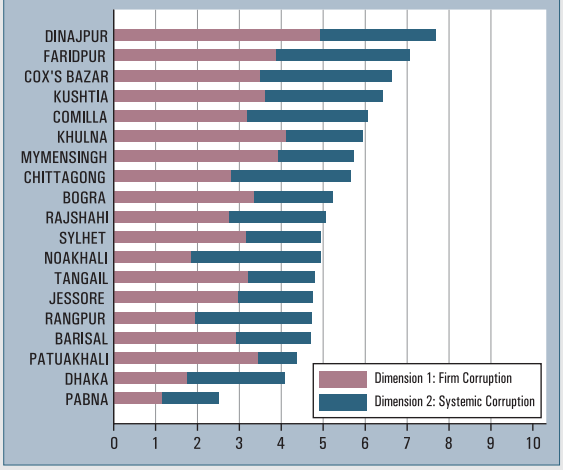
[13] The country has been ranked 139 among 180 countries in the 2009 Corruption Perception Index of the Berlin-based Transparency International.

to connections with government officials and political parties and a relatively high percentage of firms (32%) find public procurement contracts transparent and fair.

On the lower end of the spectrum, the Western district of Pabna's score (2.51) is almost half of that of the next low-scoring district Dhaka (4.08). The survey data shows that not only did a substantial percentage of firms (66%) report that they had to pay informal payments in Pabna, almost half of these firms did not receive services after such payments (34%). Thus, corruption affecting firms in Pabna is shown not only to be widespread, but also inefficient. In addition, a large number of firms noted that public procurement contracts are neither transparent nor fair and in many cases personal connections with government officials or political parties play an important role in public procurement. Nearly 90% of business enterprises in Pabna found political connections important.

Firms in the capital city of Dhaka also suffer from such corruption but in Dhaka, corruption is primarily at the firm level (Dimension 1).

Figure 5.5: Informal Costs Sub-Index



5.6 Participation: Consulting Business Owners About their Needs

Much literature on democratic and economic development has emphasized the important role that civil society groups play in helping to keep government accountable to its citizens through formal and informal associational participation.

In Bangladesh, civil society is exceptionally diverse and rich. The large variety of civil society organizations (CSOs) found in Bangladesh include business associations, professional groups, trade unions and worker organizations, all of which can potentially impact the business environment. Unfortunately, such groups have not always been successful at influencing MSME policy due to limited opportunities for participation and strong patron-client relations between large businesses and the government.[14]

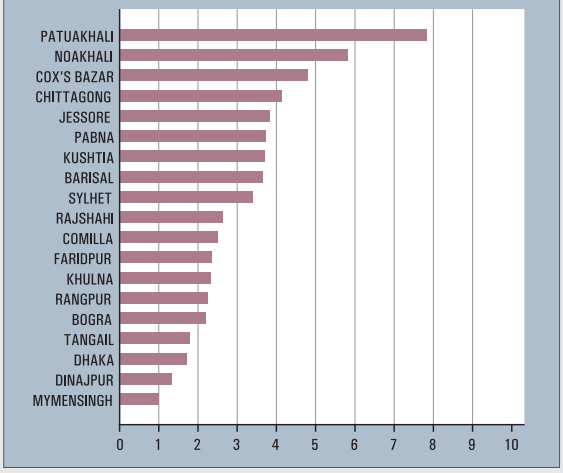
However, participation and dialogue between the business community and the local authorities has proven to be an efficient way for enterprises to foster a business environment that supports their development. BICF and The Asia Foundation have facilitated discussions between business owners and public authorities at the district level, which have led to tangible improvements such as reforms aimed at facilitating access to finance, simplifying the licensing process and limiting red tape. These experiences have highlighted the importance of participation as an engine for policy reforms and economic growth. District authorities that bring the private sector into the policy-making process are more likely to make changes that are both efficient and workable and will encourage job creation and improved livelihoods. These Public-Private Dialogues have helped build trust and better understanding among the different private and public economic actors at the local level. BICF and The Asia Foundation have conducted Public-Private Dialogues in four districts and the program may be broadened to cover more districts.

The Participation sub-index consists of 1 dimension and 3 indicators that measure not only associational activity, but also the level of participatory engagement among firms (Appendix 3).

[14]Davis, Peter R. and McGregor, J. Allister (2000) *Civil society, International Donors and Poverty in Bangladesh,* Commonwealth & Comparative Politics, 38: 1, 47 - 64

The Participation sub-index results (Figure 5.6) show that the Southern districts of Patuakhali (7.8) and Noakhali (5.8) performed the best. However, Patuakhali's score is nearly two points higher than Noakhali's with 53% of firms belonging to a business association and nearly 10% of firms saying that local government were engaged with them when new laws and policies were introduced. In addition, firms in Patuakhali seemed to be the most informed when it came to knowledge of existing laws, with nearly 5% of firms indicating that they were very or reasonably well informed. While Noakhali and third-ranked Cox's Bazar (4.8) each received relatively high scores, neither of them received Patuakhali's consistently high scores in all three indicators

Figure 5.6: Participation Sub-Index



The 10 lowest-ranked districts scored within only 2 points of each other. Mymensingh received the lowest score (1), with only 26% of its firms belonging to a business association and no firms indicating that they engaged with local government or knew anything about existing laws. Although many of these lower ranking districts are at or only slightly below the national median of 37% participation in business associations, many of these low scores are driven by the fact that most of the firms reported not being engaged in local decision-making at all. This indicates that businesses in many districts in Bangladesh do not have enough opportunities to participate in the decision-making process equitably and easily.

5.7 Law and Order: The Economic Cost of Poor Law and Order Enforcement

The cost of crime can be a major constraint for businesses. According to the World Development Indicators, in 2002 nearly 40% of firm managers reported that crime was a major constraint for doing business in Bangladesh.

Even repeated petty theft and vandalism can take their toll, causing entrepreneurs to divert resources from other productive investments into clean-up or replacement activities. Further compounding this problem, MSMEs often lack access to authorities to report these crimes, leaving them without options for recourse or reparative action. In addition, even if a firm is not the direct victim of a crime, local instability can act as a major obstacle to the development of private sector in a given locality. Deterioration of the law and order situation in an area may force some business to relocate to safer, less crime-ridden areas.

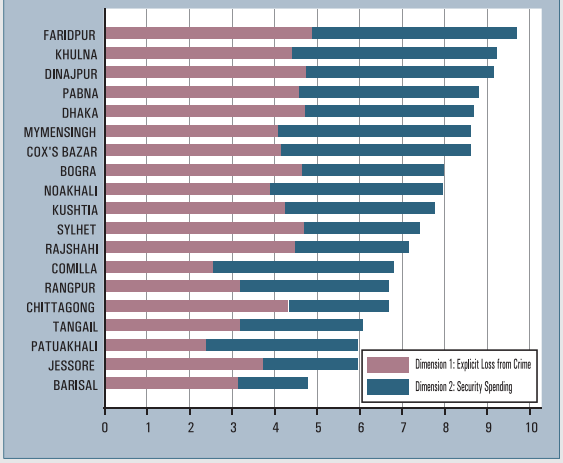
The Law and Order sub-index deals with two important dimensions of the cost of crime for business across four indicators (Appendix 3). Dimension 1, measures the explicit loss from crime and Dimension 2 looks at implicit losses from security spending.

On the Law and Order sub-index (Figure 5.7), the top districts of Faridpur (9.7), Khulna (9.2) and Dinajpur (9.1) all score within 1-point interval of each other. Faridpur scores well across both dimensions, with the lowest average monetary loss as a percentage of total sales of any district at 2% and no firms indicating that they paid any protection payments to the local police. Similarly, Dinajpur performs well with scores below the national medians across all indicators

While second-ranked Khulna does not score as well as Faridpur and Dinajpur in Dimension 1, these districts

score very well on Dimension 2 with less than 1% of firms indicating that they pay protection payments.

Figure 5.7: Law and Order Sub-Index



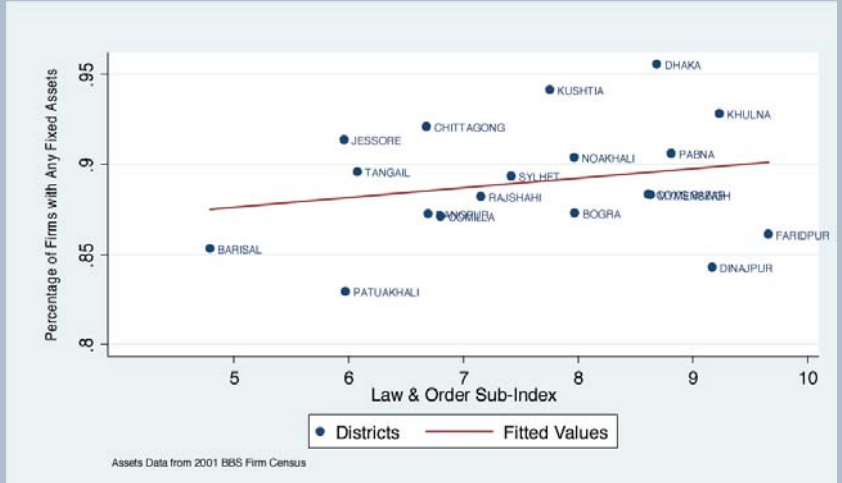
Barisal (4.8) is the lowest ranking district by more than 1-point behind Jessore (5.96) and Patuakhali (5.97). Barisal scores relatively low across both dimensions, with nearly 26% of firms reporting that they have experienced crime in the past year and firms spending nearly 1% of total sales on security spending.

While Jessore scored above the district median across the indicators in Dimension 1, on Dimension 2 a relatively high percentage of firms are paying protection payments (4.5%). The opposite is true for Patuakhali, which has a low Dimension 1 score with, nearly 38% of firms indicating that they experienced crime in the past year. This finding suggests that explicit losses from the law and order situation are higher in Jessore, while implicit losses from security spending are higher in Patuakhali.

5.7.1 Relationship between Percentage of Firms with Any Fixed Assets and the Law and Order Sub-Index

The scatter plot below shows the correlation between the percentage of firms with fixed assets in the district and the Law and Order sub-index. This plot suggests that when firms live in a safer and more secure environment, they are more likely to invest in their businesses.

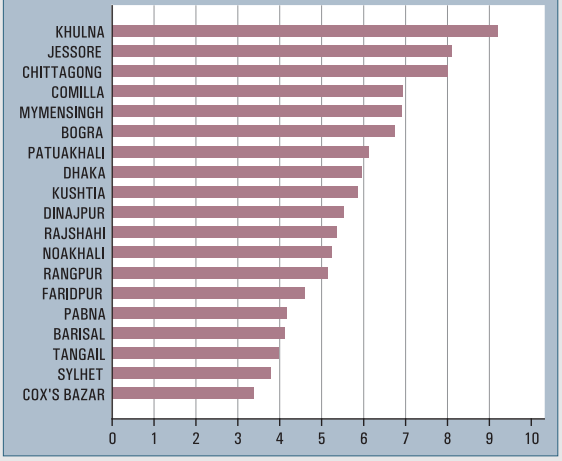
Scatter Plot 5.1: Relation between Percentage of Firms with Any Fixed Assets and Law & Order Sub-Index



5.8 Tax Administration: Finding the Right Level for Taxes

While paying taxes is an inevitable and necessary part of doing business, cumbersome and complex tax administration can impose undue costs on firms, making it difficult to pay taxes or to pay the right amount of tax on time. While some firms will always try to circumvent the tax system, research has shown that firms are willing to pay relatively higher marginal tax rates as long as the tax administration is not perceived as burdensome. Conversely, when tax administration is burdensome, it is correlated with increased informal activity in the economy.[15] In short, when the tax system is difficult to navigate, many firms simply choose to remain outside the formal system. For these firms, it may be more efficient to pay off individual tax officials with bribes or find other ways to avoid payment rather than to deal with the hassle of legally paying taxes. This not only deprives firms of the benefits of formalization (such as access to formal credit), but also implicitly divests revenue from national and local governments needed to provide quality services. This further degrades the business environment, as firms have to face poor infrastructure and sub-standard services which adversely impact their development.

Figure 5.8: Tax Administration Sub-Index



[15] Johnson, Simon, Daniel Kaufmann and Pablo Zoido-Lobaton. (1998). Regulatory Discretion and the Unofficial Economy. The American Economic Review, Vol. 88, No, 2, Annual Meeting of the American Economic Association (May 1998).

The Tax Administration sub-index addresses the relatively burdensome Bangladeshi tax system through one dimension and four indicators (Appendix 3). The first two indicators deal with the efficiency of tax collection, while the final two indicators are measures of the arbitrary nature of the tax system. If taxes are not predictable for firms or if taxes can easily be avoided through informal payments to individual tax officials, it reflects the arbitrariness and inefficiency of the system.

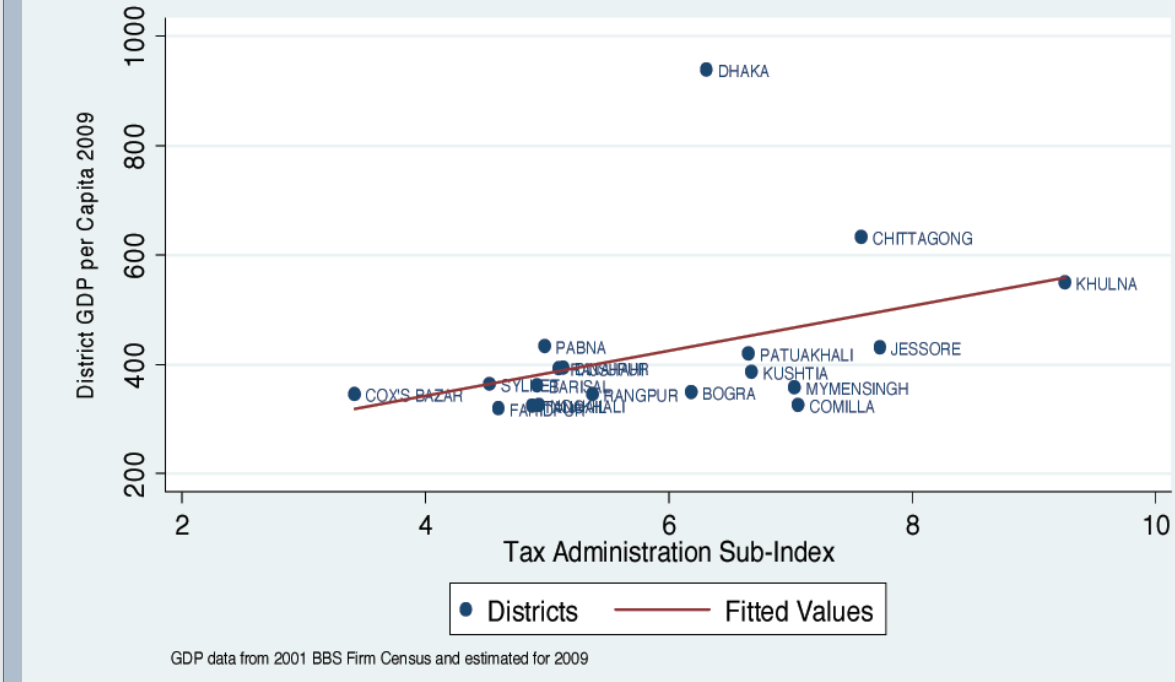
The results of the Tax Administration sub-index (Figure 5.8) show that Khulna (9.3) received the highest score by nearly two points over second- and third-ranked Jessore (7.73) and Chittagong (7.75). As highlighted in Appendix 5, Khulna received the highest score on three indicators, with 81% of firms reporting to pay some taxes, 71% of firms paying VAT or turnover taxes and nearly 70% of firms considering the tax system effective. Khulna also received a relatively good score on the last indicator, with only 19% of firms reporting that negotiations with the tax authority are a normal part of doing business. Jessore and Chittagong received similarly strong scores across all of the indicators. These findings illustrate that for these districts, the tax system is relatively more efficient and less arbitrary than that of many other districts.

Cox's Bazar (3.4) received the lowest score on the Tax Administration sub-index, more than 1 point lower than the penultimate finisher Sylhet (4.5). Cox's Bazar had relative low scores across the first three indicators, with only 54% of firms paying any taxes, 23% of firms paying VAT or turnover taxes and less than 20% of firms reporting that the tax system is effective or very effective. The district received its best scores on the last indicator with only 21% of firms indicating that negotiations with the tax authority are part of doing business. Sylhet had similarly low scores, with the lowest percentage of firms (50%) reporting that they paid any taxes. These results show that the efficiency and arbitrariness of tax administration varies greatly across districts.

5.8.1 Relationship between District GDP Per Capita and Tax Administration Sub-Index

The scatter plot below shows the relationship between district GDP per capita and the Tax Administration sub-index, which is clearly and positively correlated. This plot indicates that there is a strong relationship between the quality of tax administration and district GDP.

Scatter Plot 5.2: Relationship between District GDP Per Capita and Tax Administration Sub-Index



5.9 Dispute Resolution: Fair and Affordable Dispute Resolution Systems as a Key Element of Business

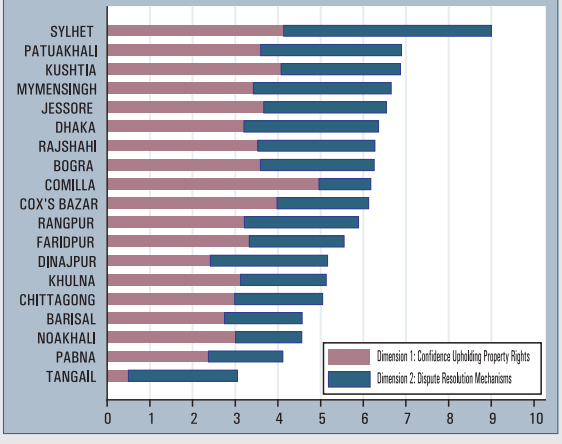
A key component of the business environment is the government's ability to enforce contracts and resolve disputes for private sector development. Proper contract enforcement and dispute resolution mechanisms reduce risk and uncertainty in commercial and financial relationships by assuring firm owners and investors that their contractual rights will be upheld by the courts. When contractual or other types of disputes cannot be resolved in a timely and cost effective manner by the courts, firms tend to rely on informal or traditional dispute resolution systems, which function at varying levels of efficiency. In a situation where firms cannot rely on a system they trust, firms are less likely to take on investment risk or enter commercial agreements for fear that their rights might not be upheld or that it will be unduly costly in terms of time and money to go to court.

In Bangladesh, many prefer to resolve disputes out of court or to use alternative dispute resolution mechanisms like the traditional *Shalish* system, in which a local Shalishkar adjudicates local cases outside of the formal court system. While this system has functional problems-most notably bias on the part of the Shalishkar-many Bangladeshis still prefer it to the formal system.

The Dispute Resolution sub-index measures use and satisfaction with both the formal and informal systems across two dimensions and four indicators (Appendix 3). Dimension 1 deals solely with firms' confidence in the legal system's ability to uphold contracts. Dimension 2 deals with firms' use of and satisfaction with various formal and informal institutions.

Figure 5.9 below describes the results of the Dispute Resolution sub-index with Sylhet (9.0) more than two point intervals ahead of the second- and third- ranked Patuakhali (6.9) and Kushtia (6.8). As illustrated in Appendix 5, Sylhet received the second highest overall score on Dimension 1, with nearly 91% of the firms reporting that they considered the process for disputing contracts fair.

Figure 5.9: Dispute Resolution Sub-Index



Sylhet also received the highest score in Dimension 2, with the highest percentage of firms using local dispute resolution mechanisms (75%) and 96% of firms indicating that they were satisfied with the dispute resolution mechanism of their choice. Patuakhali and Kushtia also received relatively high scores across both dimensions, although both districts had markedly lower use of local institutions- 25% and 22% respectively. In these two districts, while use of local institutions is low, satisfaction with other dispute resolution mechanisms is relatively high.

Tangail (3.05) received the lowest overall score, driven primarily by its score on Dimension 1, with only 27% of firms believing that contracts will be upheld and 35% of firms thinking that there is a fair process to dispute rental contract changes. The results for Dimension 2, however, were mixed as no firms use local institutions for dispute resolution, but 93% of firms are satisfied with their chosen method of dispute resolution. This highlights the fact that while much of the dispute resolution that occurs in Bangladesh may be private and informal, firms can be highly satisfied with such methods.

5.10 Infrastructure: Building Structures for Growth

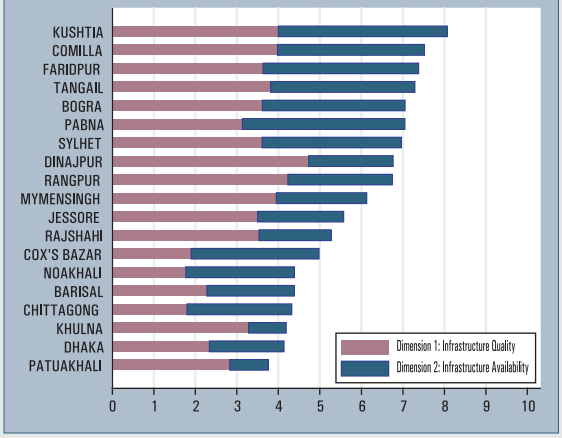
Infrastructure is comprised of the basic installations that support a country's daily living and economic activity. A country's infrastructure helps determine the success of manufacturing, commercial and agricultural activities. Investments in water, sanitation, energy, housing, and transport also improve lives and help reduce poverty. Additionally, new information and communication technologies promote growth, improve delivery of health and other services, expand the reach of education, and support social and cultural advances.

Infrastructure development in Bangladesh is a challenge due to its unique geographical location and climate pattern. Situated near sea level and often called the "land of a thousand rivers" much of the country is flooded annually by monsoon rains. While such rains are necessary for agriculture, they often wash out roads and interrupt power, imposing implicit costs to firms and occasionally disrupting normal operations.

The Infrastructure sub-index deals with two important dimensions of infrastructure provision-quality and availability-across six indicators (Appendix 3). The first indicators across both dimensions utilized factor analysis to create scores of quality and availability.[16]

Figure 5.10 below shows the results of the Infrastructure Sub-Index with Kushtia (8.1) receiving the highest score over second- and third-ranking Comilla (7.5) and Faridpur (7.3). While Kushtia did not receive the highest score in Dimension 1, it received a relatively good score largely driven by its high infrastructure quality factor score and its high percentage of paved roads (77%). Kushtia received the highest Dimension 2 score with the most kilometers of road per square kilometer (0.27 KM) and the most kilometers of paved road per square kilometer (0.206 KM). Comilla and Faridpur received relatively balanced scores across all indicators on both of the dimensions, indicating that these districts are doing relatively well in both infrastructure quality and availability.

Figure 5.10: Infrastructure Sub-Index



While the South-western district of Patuakhali (3.76) received the lowest score, it is interesting to note that Bangladesh's largest cities-Dhaka (4.1), Chittagong (4.3) and Khulna (4.2)-also received similarly poor scores. For all of these cities, the factor scores for both quality and availability are negative and Dhaka has the lowest percentage of paved roads out of total roads (60%) among all districts. These mega cities face multiple challenges related to their size and rapid urbanization, which undoubtedly contributed to their low rankings. Being the centers of business and investment, it is critical their governments invest heavily in the development of infrastructure given that they will be the engines of growth and development for Bangladesh for the foreseeable future.

[16] Factor analysis is a statistical tool for reducing several highly correlated variables into a small number of uncorrelated variables, which are called "factors."

6. Concluding Remarks and Policy Implications

The 2010 Bangladesh Economic Governance Index presents detailed research based on firm-level data on district business environments. It provides information on how local business people understand and perceive the environment in which they start and operate their businesses; what aspects they find most constraining; and how they feel regarding the performance of their local authorities.

The EGI is meant to serve several important purposes. First, it draws attention to the importance of the private sector in local-level development and the need for supportive business environments at the sub-national level to ensure greater local economic competitiveness. Second, by highlighting the strengths and weaknesses of each district on each key sub-index, the EGI provides practical information for actionable steps that can improve the business environment. Finally, the EGI can create opportunities for greater understanding between the public and the private sectors.

6.1 The EGI as a Tool for Reflection

The EGI index ranking is meant to inspire the desire for improvement and act as a practical tool for officials to use in developing an actionable policy agenda in consultation with the private sector.

6.2 The EGI as a Tool for Policy Reforms

By focusing on economic governance, the EGI emphasizes policies, initiatives, and performance of the district authorities, thus setting the stage for needed adjustments and reforms. An important function of EGI is to serve as a policy analysis tool for national and sub-national governments to help diagnose and address economic governance. As mentioned previously, the EGI is a useful tool for local officials and business people to compare the performance of their district to the performance of other districts. The data and information provided by the EGI provides guidelines that then need to be analyzed in greater detail to better diagnose problems, target reforms and isolate the impacts of policies and programs. Such research-based evidence is crucial for implementing policies and programs that can increase economic growth and improve the quality of life for the Bangladeshi people.

Another useful EGI application is the identification and dissemination of practical examples of best practices at the district level. By identifying the best performing districts in key economic governance areas, the EGI offers an opportunity to identify initiatives and potentially applicable best practices that may be implemented in their own districts.

6.3 Building Public-Private Coalitions for Improved Competitiveness

Studies conducted by The Asia Foundation on the sub-national business environment reveal that most affected enterprises tend to take economic governance constraints as a given, seek little assistance from local government officials or other actors, and do not initiate opportunities to engage with these officials. A principal aim of the EGI is to help build broader stakeholder support for policy reform using the EGI's empirical information on the business environment at the sub-national level. Building on the findings and recommendations of the EGI and other research, BICF and The Asia Foundation will continue to facilitate the development of communication platforms between the private and public sectors in the four program districts. District-level dialogues can provide the platform for the private and public sectors to raise issues, identify solutions, prioritize areas of reform, disseminate information, and determine and implement a series of practical interventions for an improved business environment.

The EGI can play a catalytic role in fostering a more open and constructive relationship between the public and the private sector, at the district level through the following suggested steps:

1. Developing a culture of dialogue and participation among the private sector, public authorities and civil society;
2. Using the EGI to set local priorities based on the strengths and weaknesses of each district;
3. Conducting in-depth diagnostics of priority areas and identifying problems;
4. Setting key recommendations and action plans to implement these recommendations;
5. Identifying and learning from other districts' best practices; and
6. Broadening dialogue and ensuring information dissemination.

The EGI can also be used at the national level to foster beneficial change by:

1. Streamlining the regulatory process and disseminating clear information on the regulatory environment and ongoing reform processes;
2. Ensuring that national level policies and reforms are adapted to the local level and then understood and implemented;
3. Strengthening linkages between national and the sub-national levels for increased transparency and efficiency; and
4. Improving interaction among the different levels of government for a better coordination of policy reforms that benefit a large portion of the country's business community.

APPENDIX 1.A

Indexing Methodology

The indexing methodology for the EGI is well established from other Asia Foundation EGIs, including Vietnam, Cambodia, Indonesia and Sri Lanka. In short, the EGI is a collection of indicators assembled from the EGI survey data and hard data that are then standardized to a 10-point scale and compiled into theoretically-relevant sub-indices. Those indices are then compiled into unweighted and weighted overall indexes.

1.A.1 Choosing Sub-Indices and Indicators: The sub-indices and indicators for the Bangladesh EGI were carefully chosen to be highly relevant in the Bangladeshi context. The process of choosing the sub-indices and indicators was ongoing throughout the life of the EGI project and required constant refinement. The multi-step process begins with the survey instrument and ends with running sophisticated diagnostics on the final survey data.

1.A.1.1 EGI Survey Instrument: The process of choosing sub-indices and indicators for the EGI started with the creation of the survey instrument. The sections and questions on the survey instrument were carefully crafted by The Foundation and the IFC to capture information that was relevant to Bangladesh's business context.

1.A.1.2 Research Team Meeting and Feedback: Once the EGI survey data was compiled and cleaned, the research team met to compile a list of sub-indices and potential indicators from the survey. The team went through a long list of potential sub-indices and evaluated their theoretical and contextual relevance for Bangladesh. The team finally came to a consensus on the final 10 sub-indices as fulfilling both criteria.

During the process, the team also chose the "dimensions" of each sub-index. The "dimensions" of a sub-index highlight important theoretical aspects of that sub-index with indicators grouped under each. For example, the Access to :Land and Security of Tenure sub-index, has two dimensions: 1) Access to Land; and 2) Security of Tenure. Each dimension has 2 indicators. It was important to group indicators under such dimensions in order to keep them theoretically distinct. While not all of the sub-indices have more than one dimension-either because there are not enough indicators to justify more than one dimension or because there is no theoretical distinction between the indicators-the majority do have more than one. Within any given sub-index each of the dimensions is weighted equally (i.e. in a sub index with two dimensions, each dimensions is worth 50% of the total sub-index).

1.A.1.3 Hard Data: While the preliminary choices for the sub-indices, dimensions and survey indicators were being made, the research team also made a preliminary list of the hard data needed for the "hard data" indicators. Hard data indicators are important because, like "directly comparable answer"-type questions from the survey, they help ameliorate perceptions bias.

1.A.1.4 Data Diagnostics: After the preliminary choices for the sub-indices and survey indicators were made the research team performed two additional diagnostic tests to further ensure that the final sub-index and overall index scores would be driven by differences among districts rather than by firm-level factors. First, the standard errors around district indicators had to be small enough, so that district scores at the 75th percentile of a particular indicator were significantly different from provinces at the 25th percentile. This check was important, as it means that if a sub-index were to be replicated on a hundred separate samples of firms, ninety-five of those times, the same districts would be at the top end and low ends of a particular score.

Second, the research team used regression analysis to ensure that the differences in particular indicators were not primarily by variation in the type or size of firms concentrated in particular districts. This test helped ensure that rankings resulted from universally applicable governance factors and not as a result of attributes of particular firms in particular districts. For example, one might worry that registration procedures take longer for manufacturing firms and districts with a disproportionate share of such firms would fare worse in the rankings. When possible, such indicators were eliminated altogether from the EGI. When it was not possible to eliminate these indicators because that would result in too few indicators being included in the sub-index, the research team would restrict the sample to a reasonable set of firms for the analysis. For example, in the Participation Sub-Index it was clear that trade firms were more likely to be members of business associations than manufacturing or service firms and that this effect was differential across districts, meaning that districts with a higher concentration of trade firms would get higher scores than those with lower concentrations of trade firms. Therefore, the research team restricted the analysis on this variable to only trade firms, so that no matter the differing concentrations of firms across districts, the analysis was comparing like firms.

1.A.2 Indexing Methodology: Once these theoretical decisions and diagnostics were complete, the research team narrowed down its final set of sub-indices, dimensions and indicators and proceeded with the indexing methodology.

1.A.2.1 Normalizing Indicators: Once the indicators were finalized and their district means or medians were obtained researchers standardized those statistics around a ten-point scale through a simple normalization process, using the following formula:

$$9 * \left(\frac{District_1 - Minimum}{Maximum - Minimum}\right) + 1$$

Where Districti is the individual district value, Minimum is the smallest district value among all of the districts, and Maximum is the largest district value among all of the districts. For some indicators, a large number has negative interpretation. In these cases, we reversed the index by subtracting the entire quantity from eleven. An example of a negative indicator would be the number of total inspections experienced by each firm. Such an indicator would use the form:

$$11 - \left(9 * \left(\frac{District_1 - Minimum}{Maximum - Minimum}\right) + 1\right)$$

There are three principle reasons the research team normalized the indicators. First, it allowed researchers to transform indicators into a value that is based solely on each districts score in comparison to other districts. Second, the process of normalizing scores allowed researchers to combine data from different indicators, which are often in different units, into one sub-index. For example, it allows researchers to combine an indicator which is expressed in 'average number of days' with an indicator which is expressed in 'average number of firms'. Third, normalizing the data facilitates a comparison of EGI scores across years throughout successive iterations.

1.A.2.2 Constructing the Sub-Indices: After the indicators are normalized, the sub-index scores are calculated by taking the simple average of indicators. If a sub-index contains multiple dimensions, the average of the dimensions is used instead, so that dimensions receive equal weight. When hard data is used in a sub-index, the general rule is that the indicator must account for 40% of the total sub-index. If hard data is used in a sub-index that has multiple dimensions, however, the rule is adapted so that the hard indicators account for only 40% of the particular dimension, so as not to distort the overall meaning of the index.

1.A.2.3 Constructing the Final Sub-Index: Once the sub-indices are all constructed, the final unweighted sub-index is compiled by simply summing up all ten sub-indices. For the 2010 EGI, the research team also decided to weight the final version of the sub-index to ensure that it was highly policy relevant. Weighting each sub-index in terms of importance signals to local officials

how to best prioritize their reform interventions for the biggest impact.

The weighting process uses regression analysis to determine the sub-index weights. First, the research team regressed the binary variable "Plans to Expand"- which indicates whether a firm is planning to expand or not over the next two years-on each sub-index, controlling for firm and district level characteristics. These analyses use probit models for which the marginal effects are calculated.

The research team was able to use the coefficients from these regressions to help create weights for each sub-index. As Table 1.A.2.3.2 shows, the regression coefficients gave the research team the marginal probability of a business expanding based on a 1-point improvement in any particular index. For example, a 1 point improvement in the Informal Charges Sub-Index leads to a 4.06% increase in the probability that a business will expand. Since this coefficient was highly significant at the 0.01 level, the team gave the Informal Charges Sub-Index a very high potential impact rating with a final weight of 15%. All of the other sub-indices were weighted accordingly in terms of marginal probability and significance. It is important to note that the Participation Sub-Index has a high negative probability-indicating that more participation in the district negatively impacts a firm's marginal probability of expansion-and is highly significant. The research team noted that this was likely evidence of "capture" at the district level, meaning that only highly connected firms are able to benefit from participation at the expense of less well connected firms. While the research team believes that participation is a normative good that can help MSMEs in the long run, these results indicate that the type and the quality of participation for firms in Bangladesh at the moment is very poor. In this way, the District Public-Private Dialogues (DPPDs) and other efforts to encourage quality participation by MSMEs are important tools for improving how participation impacts firms in Bangladesh.

Table 1.A.2.3.2 Weights for Final Weighted Economic Governance Index

Sub-Index	Marginal Probability of Business Expansion (Based on 1-Point Increase in Sub-Index)	Potential Impact	Final Weight
Informal Charges	4.06%***	Very High	15%
Law & Order	3.41%***	Very High	15%
Transparency	2.81%***	High	12.5%
Time Costs	1.98%***	High	12.5%
Dispute Resolution	1.33%*	Med	10.5%
Infrastructure	1.26%*	Med	10.5%
Land Access & Tenure	0.28%	Med	10.5%
Entry Costs	-0.16%	Low	5.5%
Tax Administration	-1.1%*	Low	5.5%
Participation	-2.2%***	Very Low	2.5%

*Indicates that coefficient is significant at the 0.1 level; ** Indicates that coefficient is significant at the 0.5 level; *** Indicates that coefficient is significant at the 0.01 level

APPENDIX 1.B

District Selection

1.B.1 Choice of 4 Public-Private Dialogue Program Districts from the 64 districts: The BICF-Asia Foundation program aimed at improving the business environment at the district level was originally implemented in four pilot districts headquarters. The choice of these program districts (Bogra, Barisal, Rajshahi and Sylhet) was based on the consideration that they are politically and economically important district towns, have a relatively strong SME bases with large potential for growth, and have a greater chance of being taken seriously in national level dialogues concerning regulations and policy making for SMEs. The final selection was also purposively driven by considerations relating to logistics and ease of management oversight. While districts housing the seven divisional headquarters (these are all headquarters of former greater districts) are suitable on the basis of these considerations, it was observed that Dhaka, Chittagong, and Khulna districts have urban population proportions (UPPs) of more than 50 percent which is atypical of the rest of the country.. In fact, 52 districts have UPPs less than 20 percent, and all the selected program districts (except Rajshahi) fall in this set. The choice of Rajshahi (which has an UPP of 34.1 percent) is based on the fact that it has a relatively low UPP, houses a divisional headquarter, and has a good SME base. Barisal and Sylhet districts also house the respective divisional headquarter, while the outlier, Bogra, has traditionally been a strong SME growth area and was also the seat of a former greater district (Greater Bogra district). All four districts have relatively similar SME supportive infrastructure and none of them have piped gas connections with the national pipeline.

1.B.2 Choice of 15 Comparison Districts for the EGI Survey: With the four program districts being the seat of the district headquarters of former greater districts, comparability requires the other comparator districts for the EGI to be seats of former greater district headquarters as well. While former subdivisions were upgraded to districts, their headquarters did not develop as fast as the former greater district headquarters. Consequently, it was logical to designate as the other comparator EGI districts those which house former greater district headquarters as well. This yields 15 comparator districts.

APPENDIX 1.C

Business Listing and Sampling Frame

This first baseline 2010 EGI initiative in Bangladesh covers 19 districts throughout the country. The survey was conducted in the City Corporation or municipal area of each district headquarters.[17]

In 2003, the Bangladesh Bureau of Statistics (BBS) conducted a national census of fixed business establishments (updated in 2006). Of the total 3.7 million enterprises recorded in the census, approximately 85,000 employ 10 or more workers (10+ establishments). Enterprises are classified as permanent, temporary and household premise-based. The EGI survey confined itself to permanent establishments, defined as those having fixed location and permanent structure (i.e., lasting more than a year). There are about 1 million such establishments of all size classes in all the municipalities and city corporations of the country. [18]

Data International (DI) had access to BBS's computerized dataset of the 10+ worker establishments. However, BBS decided not to make their census data on enterprises employing 10 or less workers (10- establishments) available for general public use. Even if the complete data on all enterprises were available, the question would still remain as to whether this database (which was updated in 2006) could reliably be used in 2009. It was therefore considered necessary to conduct a business listing (similar to a census, but not as large in scope) of SMEs in each of the 19 district towns from which to draw the sampling of enterprises for the EGI survey.

1.C.1: Business Listing: Conducting a complete census of enterprises in the 19 district headquarters would have been too costly in terms of time and budget. Therefore, it was necessary to pick a sample of areas (henceforth called "primary sampling units" or PSUs) within each of the 19 district HQs for the business listing. The PSUs had to reasonably reflect the composition of firms within each city. However traditional sampling methods—purposive sampling and simple random sampling—had drawbacks. Purposive sampling in a given district based on firm characteristics such as firm size could have biased the sample for the listing from the start, as research has shown that firms choose their locations at least partially on the basis of their own characteristics. On the other hand, randomly choosing certain areas of a city for PSUs would run the risk of not capturing areas with many firms, as the number of firms varies from area to area.

The research team decided to use a method called Probability Proportional Sampling to Size (PPS) to avert these problems. PPS is a cluster probability sampling method that takes into account the population of firms in any given area, so that areas with more firms are more likely to be selected into the sample. Once the *PSUs* within each city are selected, enumerators were sent out to each of the selected PSUs to field the census questionnaire to all firms within that PSU. The specific steps taken to implement the PPS methodology are described in detail below.

[17] Unions adjoining each city corporation/municipality area would also be included. This would allow for inclusion in the survey of enterprises located just outside the city limits.

[18] The following sub-sectors in the BBS census were excluded: mining and quarrying; bank, insurance and financial institutions; real estate and renting; public administration and defense; education services; health and social works; and community, social and personal services. Included are manufacturing, construction, wholesale and retail trade, hotel and restaurant services, and transport, storage and communication services. Agricultural production activities would remain excluded except for commercial fisheries and associated industries (for example, hatcheries), and commercial poultry and livestock farms.

1.C.2 Steps in Implementing the PPS Methodology

1. **Identification of PSUs:** The district headquarters are administratively divided into a number of wards, and each ward is comprised of a number of *'mahallas/paras'* or neighborhoods, which served as the PSUs. DI collected lists of all mahallas/paras from the Economic Census 2003 (and 2006 update). This list was then matched with the mahallas/paras listed in the BBS Population Census 2001 database. DI prepared a comprehensive list and field investigators subsequently made physical visits to cross-check on the information. An updated list of mahallas/paras was then prepared to reflect the current position. In many instances, the mahallas/paras reported in the Economic Census had to be split into several segments as they were found to be too generalized.

2. **Estimating the Population in each PSU:** DI sorted the BBS 10+ data from the 2003 Economic Census and 2006 update to get the population of enterprises in each mahalla/paras. However, to identify the number of enterprises in each 'mahalla/para', use of the available BBS data for 10+ enterprises alone would have been misleading since a 'mahalla/para' observed to have only a very few 10+ enterprises might have a more than average number of 10- enterprises and consequently may have higher enterprise population than that indicated by the BBS 10+ data alone. To justify use of the BBS 10+ listing to obtain enterprise concentrations in each sub-ward would require the assumption that 10- enterprises are more or less equally distributed across all 'paras', which was not a reasonable assumption. To supplement the BBS data on 10+ enterprises and to estimate the population of 10+ and 10- enterprises in each 'mahalla/para' of each district town, DI obtained valuable information from various Business Membership Organizations (Chambers of Commerce, business associations, local governments—municipalities, unions) as well as from knowledgeable persons.

3. After completion of the above two steps, the 'mahallas/paras' that had relatively low business concentration (such as residential areas) were dropped from the listing. Soon after finalizing the list of business concentrated areas, teams from DI visited each of the listed area and compiled rough estimations of the number of enterprises in that location. Attempts were also made to count the number of 10+ enterprises in each of the locations.

4. Using Probability Proportional to Size (PPS) sampling technique, a minimum of 8 locations or 10% of the identified business concentrated areas, whichever higher, was selected for census listing.

5. Once the PPS lists were complete, DI conducted a census of all enterprises in the sampled mahallas/paras to serve as a sample frame for the EGI survey. Teams from DI visited all visible enterprises in selected locations and recorded information on their employment, type of business and legal status.

APPENDIX 1.D

Sampling for the EGI Survey

1.D.1 Stratification Design: For the EGI survey sample, the research team took a stratified random district-level sample of 3,800 firms (200 per 19 districts). In total there were nine strata comprising sector type and firm size. Sector type was divided in three strata: (i) manufacturing; (ii) trade and (iii) services. Size class was defined in terms of full-time employment, and was also divided into three strata. However, microenterprises with less than three workers were not included in the sample of firms to be surveyed. [19]

1.D.2 Oversampling Strategy: The study sample design limited to 200 the number of enterprises to be interviewed in each district headquarter due to resource and time limitations. The objective of stratification by sector and size warranted a minimum acceptable coverage of each of the 9 strata to draw inferences about the population characteristics from the sampled firms in each stratum. Based on the Business Listing information, usage of a completely random sampling approach would yield a very high representation from the 3-5 worker sized enterprises and too few from the large size classes. As Table 1D.2.1 shows for Barisal, the population breakdowns yield very low percentage of larger size classes For example, under these strata, with 200 firms sampled, fewer than 4 trade firms with 10-99 employees would be sampled. Thus, the research team decided to devise an oversampling strategy that would allow enough units from each strata to be reliable.

Table 1.D.2.1 Strata Breakdown

Subsector	3 to 5 workers	6 to 9 workers	10 - 99 workers
Manufacturing	23.8%	5.7%	4.2%
Trade	35.1%	2.8%	1.9%
Services	19.5%	4.3%	2.7%
Total	**78.4%**	**12.8%**	**8.8%**

For the oversampling strategy, it was argued that the '3-5' workers enterprises were completely different in nature from the '6-9' and 10+ enterprises. Accordingly, the expedient course was to treat them as different universes and pick 100 from the '3-5' enterprises (Group A) and 100 from the '6-9' and '10-99' enterprises (Group B). Once the proportion for the two enterprise universes (i.e. Group A: 3-5 workers and Group B: 6-99 workers) was calculated, actual numbers of enterprises to be interviewed in each strata were estimated. Group B had two size classes – Group B1 and Group B2, representing firms with 6-9 employees and 10+, respectively. As an illustration, by splitting the 200 firms for the sample evenly between the two groups as Table 1.D.2.2 shows ,the percentage of Group B firms sampled increases, successfully oversampling such firms, while the percentage of Group A firms sampled decreases.

Table 1.D.2.2 Oversampling Strategy

Subsector	Group A	Group B1	Group B2
Manufacturing	30%	26%	20%
Trade	45%	13%	9%
Service	25%	20%	12%
Total	**100%**	**59%**	**41%**

1.D.3 Sampling of Firms: Once the stratification and oversampling strategies were finalized, firms were selected from their strata. DI then conducted face-to-face interviews with these 200 firms in all 19 EGI districts. Since it was imperative to obtain 200 firm respondents from each of the 19 districts, DI created a 5% additional sample for each strata and group as a replacement sample in case of refusal or unavailability.

[19] The sample is restricted to firms with three employees or more because firms smaller than this level have very little interaction with the government. The size classification of enterprises follows BBS's definition in the Economic Census; BBS defines enterprises with up to 9 employees as micro, those with 10 to 49 employees as small, and those with 50 to 90 employees as medium.

The response rate for non-replacement for the total sample was 89.4%, extremely high for face-to-face firm interviews. Table 1D.3 shows the response rates by district, which were tightly grouped around the overall mean of 89.4%, indicating that differential response rates were not a problem.[20]

Table 1D.3: Response Rates by District

District	Mean	District	Mean
Barisal	81.5%	Kushtia	82.5%
Bogra	89.0%	Mymensingh	90.0%
Chittagong	82.0%	Noakhali	100.0%
Comilla	97.5%	Pabna	89.0%
Cox's Bazar	87.0%	Patuakhali	90.0%
Dhaka	83.0%	Rajshahi	97.0%
Dinajpur	95.0%	Rangpur	89.5%
Faridpur	97.5%	Sylhet	94.0%
Jessore	93.5%	Tangail	99.0%
Khulna	62.5%		
Mean District Response Rate		**89.4%**	

1.D.4 Post-Stratification Weights: Once the data was collected for the 3,800 firms, it was necessary to reweight the sample back to the original Business Listing district breakdowns, since medium and large firms were oversampled. In order to calculate the post-stratification weights the research team used the following standard formula for each stratum in each district:

(Prop.Population)/(Prop.Sample)

This equation creates the post-stratification weights by dividing the proportion of the population (from the original business listing) in the strata by the proportion of the sample.

1.D.5: EGI Survey Sample: Table 1.D.5 below provides descriptive information on the firms that answered the survey. Three samples of firms are compared. Column 1 assesses the original sample of firms in which medium and large business are oversampled at the district level. Column 2 looks at the reweighted samples that are representative at the district level and were used for the EGI analysis. The last column looks at the data weighted for a national-level analysis. By stratifying on the district-level the EGI tends to underestimate large districts like Dhaka and Chittagong. To provide national-level analysis Column 3 reweights answers using the national population proportions from the business listing, so that the importance of large districts like Dhaka are accurately reflected.

[20] The one outlier was Khulna, with a below average non-replacement response rate of 62.5%. However, in robustness tests, response rates were not shown to affect the scores of the overall unweighted index, indicating that low response rates did not affect the EGI rankings.

Table 1.D.5 Profile of the Sample Firms

	Original Sample	Reweighted District Sample (Representative)	Nationally Representative Sample
Observations	3,800	3,800	3,800
Respondent's Position in Firm			
Owner	57.26%	60.07%	59%
Owner without Management Responsibilities	15.87%	14.02%	14%
Manager	26.87%	25.91%	27%
Establishment Year			
2006 to 2009	27.09%	28.95%	28.22%
2002 to 2005	19.43%	19.65%	19.55%
1998 to 2001	15.67%	15.77%	15.94%
1994 to 1997	10.51%	10.27%	10.22%
1990 to 1993	7.14%	6.83%	6.66%
Before 1990	20.17%	18.54%	19.41%
Size of Firm (Number of Full-Time Current Employees)			
1 to 3	23.92%	36.12%	37.32%
4 to 6	41.87%	49.22%	49.29%
7 to 10	20.92%	8.95%	8.34%
11 to 19	9.61%	4.14%	3.67%
20+	3.68%	1.58%	1.39%
Primary Sector			
Manufacturing	32.84%	28.47%	24.91%
Services	21.50%	19.96%	14.67%
Trade	45.66%	51.57%	60.42%
Legal Status			
Sole proprietorship	90.24%	92%	91.64%
Partnership	9.29%	8%	8.05%
Co-operative society	0.18%	0%	0.15%
Private Limited Liability Company	0.24%	0%	0.13%
Publicly Listed Company	0.05%	0%	0.03%
Plans Over the Next Two Years			
Increase Size of Operations Considerably	19.96%	18.33%	18.25%
Increase Size of Operations	55.89%	57.13%	57.07%
Continue Operating at Present Size	21.62%	22.01%	22.00%
Reduce Size of Operations	1.50%	1.48%	1.57%
Reduce Size of Operations Considerably	0.18%	0.23%	0.22%
Close this Business	0.84%	0.82%	0.88%

APPENDIX 2.A
EGI Unweighted Index

DISTRICT	ENTRY	LAND	TRANSPARENCY	TIME	INFORMAL	PARTICIPATION	LAW	TAX	DISPUTE	INFRASTRUCTURE	UNWEIGHTED
KUSHTIA	6.119686	7.706951	7.920914	8.248	6.440138	3.715837	7.755	6.686439	6.879393	8.077748	69.55
FARIDPUR	7.047587	10	6.757948	8.845	7.065819	2.356979	9.660	4.602958	5.555596	7.389609	69.28
DINAJPUR	7.332833	9.599555	5.939422	9.380	7.689042	1.346226	9.169	5.135706	5.167699	6.7725	67.53
SYLHET	6.784816	6.58578	6.724574	9.212	4.943403	3.409553	7.416	4.531572	9.006918	6.970729	65.59
PATUAKHALI	8.473991	5.492391	5.300726	8.736	4.360848	7.842741	5.973	6.661327	6.901543	3.763768	63.51
COX'S BAZAR	6.595503	8.823374	4.730136	8.638	6.650434	4.80694	8.613	3.420401	6.132066	4.988581	63.40
COMILLA	6.215525	7.728259	6.635645	6.431	6.080965	2.510035	6.802	7.067038	6.181989	7.524889	63.18
MYMENSINGH	4.977679	7.802041	3.669184	9.358	5.723648	1	8.631	7.038079	6.658492	6.138173	61.00
JESSORE	7.140243	7.166305	3.964419	7.229	4.75902	3.828938	5.961	7.738307	6.544883	5.579215	59.91
RANGPUR	6.651301	6.864764	5.632872	6.784	4.740637	2.258851	6.692	5.377377	5.896805	6.753414	57.65
KHULNA	6.719748	5.002927	3.968914	5.827	5.937624	2.336325	9.231	9.25878	5.141151	4.198777	57.62
PABNA	5.267035	8.384822	4.631261	7.134	2.512354	3.736106	8.812	4.985096	4.119885	7.057364	56.64
NOAKHALI	5.861082	5.174172	5.515551	6.916	4.939394	5.828738	7.965	4.935587	4.562613	4.395408	56.09
BOGRA	4.394185	9.306253	3.762263	3.400	5.230324	2.212947	7.971	6.187609	6.264118	7.063479	55.79
CHITTAGONG	6.672424	4.122385	3.694958	6.893	5.653683	4.136955	6.680	7.58737	5.05266	4.329505	54.82
DHAKA	3.364842	7.59056	4.121644	8.361	4.076878	1.733956	8.689	6.314822	6.365161	4.143557	54.76
BARISAL	7.619482	7.330092	5.167464	6.814	4.710119	3.666555	4.791	4.923134	4.572221	4.389243	53.98
TANGAIL	5.387627	7.879172	3.995987	7.343	4.792146	1.790796	6.075	4.882464	3.056068	7.297351	52.50
RAJSHAHI	4.915864	5.497242	3.601228	4.895	5.062316	2.649999	7.155	5.103021	6.276697	5.278234	50.43

APPENDIX 2.B
EGI Weighted Index

WEIGHTS	0.055	0.105	0.125	0.125	0.15	0.025	0.15	0.055	0.105	0.105	
DISTRICT	ENTRY	LAND	TRANSPARENCY	TIME	INFORMAL	PARTICIPATION	LAW	TAX	DISPUTE	INFRASTRUCTURE	WEIGHTED
FARIDPUR	3.876173	10.5	8.447435	11.05573125	10.5987285	0.58924475	14.48988	2.5316269	5.8333758	7.75908945	75.681289
DINAJPUR	4.033058	10.07953275	7.4242775	11.724445	11.533563	0.3365565	13.75385	2.8246383	5.426084	7.111125	74.24712965
KUSHTIA	3.365827	8.09229855	9.9011425	10.31000125	9.660207	0.92895925	11.6325	3.6775415	7.2233627	8.4816354	73.27347835
SYLHET	3.731649	6.915069	8.4057175	11.51465	7.4151045	0.85238825	11.12446	2.4923646	9.4572639	7.31926545	69.2279355
COX'S BAZAR	3.627527	9.2645427	5.91267	10.79774	9.975651	1.201735	12.91982	1.8812206	6.4386693	5.23801005	67.25758925
MYMENSINGH	2.737723	8.19214305	4.58648	11.6971825	8.585472	0.25	12.94669	3.8709435	6.9914166	6.44508165	66.3031287
COMILLA	3.418539	8.11467195	8.29455625	8.03840875	9.1214475	0.62750875	10.20321	3.8868709	6.4910885	7.90113345	66.09743325
RANGPUR	3.658216	7.2080022	7.04109	8.47937625	7.1109555	0.56471275	10.03844	2.9575574	6.1916453	7.0910847	60.34108355
PATUAKHALI	4.660695	5.76701055	6.6259075	10.91976625	6.541272	1.96068525	8.960022	3.6637299	7.2466202	3.9519564	60.297665
DHAKA	1.850663	7.970088	5.152055	10.45077375	6.115317	0.433489	13.03286	3.4731521	6.6834191	4.35073485	59.51254685
JESSORE	3.927134	7.52462025	4.95552375	9.03627625	7.13853	0.9572345	8.942243	4.2560689	6.8721272	5.85817575	59.46793265
KHULNA	3.695861	5.25307335	4.9611425	7.2838325	8.906436	0.58408125	13.84694	5.092329	5.3982086	4.40871585	59.4306229
BOGRA	2.416802	9.77156565	4.70282875	4.25	7.845486	0.55323675	11.95685	3.403185	6.5773239	7.41665295	58.8939257
PABNA	2.896869	8.8040631	5.78907625	8.917375	3.768531	0.9340265	13.21771	2.7418028	4.3258793	7.4102322	58.80556135
NOAKHALI	3.223595	5.4328806	6.89443875	8.64557625	7.409091	1.4571845	11.94786	2.7145729	4.7907437	4.6151784	57.1311226
TANGAIL	2.963195	8.2731306	4.99498375	9.178965	7.188219	0.447699	9.112611	2.6853552	3.2088714	7.66221855	55.71524835
CHITTAGONG	3.669833	4.32850425	4.6186975	8.61683125	8.4805245	1.03423875	10.01929	4.1730535	5.305293	4.54598025	54.7922467
BARISAL	4.190715	7.6965966	6.45933	8.51730875	7.0651785	0.91663875	7.18709	2.7077237	4.8008321	4.60870515	54.1501181
RAJSHAHI	2.703725	5.7721041	4.501535	6.1187875	7.593474	0.66249975	10.73261	2.8066616	6.5905319	5.5421457	53.02407265

APPENDIX 2.C
Consistency of High and Low Performers on the 2010 EGI

	Entry Costs	Land	Transparency	Time Costs	Informal Costs	Participation	Law & Order	Tax Admin	Dispute	Infrastructure
1	Patuakhali	Faridpur	Kushtia	Dinajpur	Dinajpur	Patuakhali	Faridpur	Khulna	Sylhet	Kushtia
2	Barisal	Dinajpur	Faridpur	Mymensingh	Cox's Bazar	Noakhali	Khulna	Jessore	Patuakhali	Comilla
3	Dinajpur	Bogra	Sylhet	Sylhet	Kushtia	Cox's Bazar	Dinajpur	Chittagong	Kushtia	Faridpur
4	Jessore	Cox's Bazar	Comilla	Faridpur	Faridpur	Chittagong	Pabna	Comilla	Mymensingh	Tangail
5	Faridpur	Pabna	Dinajpur	Patuakhali	Comilla	Jessore	Dhaka	Mymensingh	Jessore	Bogra
6	Sylhet	Tangail	Rangpur	Cox's Bazar	Khulna	Kushtia	Cox's Bazar	Bogra	Dhaka	Pabna
7	Khulna	Mymensingh	Noakhali	Dhaka	Mymensingh	Pabna	Mymensingh	Patuakhali	Bogra	Sylhet
8	Rangpur	Comilla	Patuakhali	Kushtia	Chittagong	Barisal	Noakhali	Dhaka	Rajshahi	Rangpur
9	Chittagong	Kushtia	Barisal	Tangail	Bogra	Sylhet	Bogra	Kushtia	Comilla	Dinajpur
10	Cox's Bazar	Dhaka	Cox's Bazar	Jessore	Rajshahi	Rajshahi	Kushtia	Dinajpur	Cox's Bazar	Mymensingh
11	Comilla	Barisal	Pabna	Pabna	Sylhet	Comilla	Sylhet	Rajshahi	Rangpur	Jessore
12	Kushtia	Jessore	Dhaka	Noakhali	Noakhali	Faridpur	Rajshahi	Noakhali	Faridpur	Rajshahi
13	Noakhali	Rangpur	Tangail	Chittagong	Tangail	Khulna	Comilla	Rangpur	Khulna	Cox's Bazar
14	Tangail	Sylhet	Jessore	Rangpur	Jessore	Rangpur	Chittagong	Faridpur	Dinajpur	Noakhali
15	Pabna	Patuakhali	Khulna	Barisal	Rangpur	Bogra	Rangpur	Pabna	Chittagong	Barisal
16	Mymensingh	Rajshahi	Bogra	Comilla	Barisal	Tangail	Tangail	Barisal	Noakhali	Khulna
17	Rajshahi	Noakhali	Chittagong	Khulna	Patuakhali	Dhaka	Patuakhali	Tangail	Barisal	Chittagong
18	Bogra	Khulna	Mymensingh	Rajshahi	Dhaka	Dinajpur	Jessore	Sylhet	Pabna	Dhaka
19	Dhaka	Chittagong	Rajshahi	Bogra	Pabna	Mymensingh	Barisal	Cox's Bazar	Tangail	Patuakhali

Consistent Under Performers
Consistent Over Performers
The Special Case of Dhaka

Note: This table is based on the unweighted sub-index rankings, not the weighted sub-index rankings.

APPENDIX 3

Description of Sub-Indices and Indicators

1. Entry Cost Sub-Index

Dimension 1: Time Costs — a measure of the length of waiting periods for required licenses.

a) Median number of days firms wait for a trade license;
b) Median number of days firms wait for a tax identification number certificate;
c) Median number of days firms wait for a VAT certificate;
d) Percentage of fully formal firms in the district.

Dimension 2: Monetary Costs — a measure of the expense that businesses incur for each required document.

e) Median fee for a trade license;
f) Median fee for a tax identification number certificate;
g) Median fee for a VAT certificate.

2. Land Access and Security of Tenure

Dimension 1: Land Access — a measure of the ease of purchasing or renting land for business purposes.

a) Number of firms with a Dalil (land title);
b) Percentage of firms stating that it was difficult or very difficult to obtain a Dalil.

Dimension 2: Land Tenure — a measure of the security of land tenure for business purposes.

c) Percentage of firms rating expropriation risk high or very high in their district;
d) Percentage of firms rating the risk of changes in rental contracts high or very high.

3. Transparency

Dimension 1: Access and Equity of Information — a measure of the ease and equity of obtaining government regulatory information.

a) Percentage of firms that had easy or very easy access to a series of important informational documents for their firm;
b) Percentage of firms that said they were very or reasonably well informed about existing laws and policies.
c) Percentage of firms that stated that a relationship with a government official is always or frequently necessary to obtain documents;

Dimension 2: Predictability and Consistency — a measure of the predictability and consistency of laws and policies.

d) Percentage of firms that said that there are always or frequently changes to laws and policies that materially affect their business;
e) Percentage of firms that stated that they were always or frequently informed about such changes.

Dimension 3: Independent Observation of Government Offices — an independent rating of the ease of obtaining information from three government offices to start a business.

f) Rating for Trade License Office
g) Rating for Tax Office
h) Rating for VAT Office

4. Time Costs of Regulatory Compliance

Dimension 1: Time Costs of Regulatory Compliance — a measure of time spent on government regulatory compliance

a) Median number of minutes it takes to complete a VAT inspection.
b) Median number of days it takes to obtain a dalil;
c) Percentage of firms whose senior management spends more than 15 days dealing with regulatory compliance issues.

5. Informal Charges

Dimension 1: Firm Level Corruption — a measure of monetary payments for getting services delivered:

a) Percentage of firms that reported that informal payments occur in their line of business;
b) Percentage of firms that stated that they always or frequently know that the amount of informal payment;

c) Percentage of firms that said that they always or frequently get expected service with additional payment.

Dimension 2: Systemic Corruption — a more general measure of corruption which is routinely observed for public projects:

d) Percentage of firms that consider public procurement contracts are always or frequently transparent.
e) Percentage of firms that believe that public procurement contracts are always or frequently fair.
f) Percentage of firms that find personal connections with government officials important or very important.
g) Percentage of firms that find personal connections with political parties important or very important.

6. Participation

Dimension 1: Participation — a measure of associational activity and engagement with state actors.

a) Percentage of firms in the district that are members of at least one business association;
b) Percentage of firms that said that local government always or frequently engages with them when a new law is introduced;
c) Percentage of firms that say that they are very or reasonably well informed about existing laws and policies.

7. Law and Order

Dimension 1: Explicit Loss from Crime — a measure of the scope and intensity of explicit losses from crime

a) Percentage of firms in the district that experienced losses in the past year due to extortion, theft, robbery, vandalism or arson;
b) Monetary loss due to crime as a percentage of total sales (monetary loss/total sales).

Dimension 2: Security Spending — a measure of the implicit opportunity cost of crime though security spending

c) Percentage of firms in the district that make protection payments to police officers or local mastans;
d) Monetary spending on security equipment and protection payments as a percentage of total sales (security spending/total sales).

8. Tax Administration

Dimension 1: Tax Administration — a measure of the burden of tax administration.

a) Percentage of firms paying any taxes (profit, VAT or turnover);
b) Percentage of firms paying VAT or turnover taxes;
c) Percentage of firms that said that tax collection is effective or very effective;
d) Percentage of firms that said that negotiating with the tax authority is a normal part of doing business.

9. Dispute Resolution Dimensions

Dimension 1: Confidence in Upholding Property Rights — a measure of firm confidence in the state's ability to uphold property rights.

a) Percentage of firms that have confidence that the legal system will uphold contracts;
b) Percentage of firms that believe that there is a fair process to dispute rental contracts.

Dimension 2: Satisfaction with Dispute Resolution Mechanisms — a measure of the use of local institutions (formal and informal) as well as satisfaction with dispute resolution mechanisms.

c) Percentage of firms that used local institutions in the past year to resolve disputes;
d) Percentage of firms satisfied or very satisfied with their dispute resolution mechanism.

10. Infrastructure

Dimension 1: Infrastructure Quality — a measure of the quality of infrastructure.

a) Factor analysis of infrastructure variables (quality);
b) Median number of power outages per day;
c) Proportion of paved roads out of the total number of roads (paved roads/total roads).

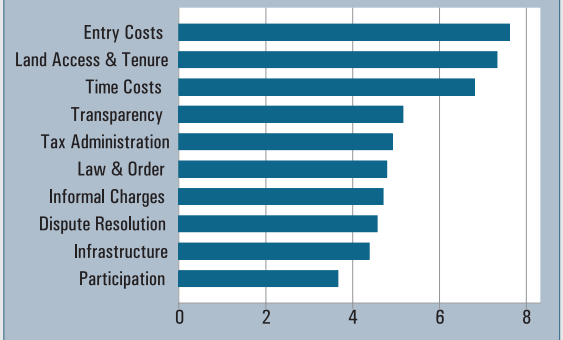
Dimension 2: Infrastructure Availability — a measure of the score of infrastructure available.

d) Factor analysis of infrastructure variables (availability);
e) Kilometers of road per square foot of the district;
f) Kilometers of paved road per square foot of the district.

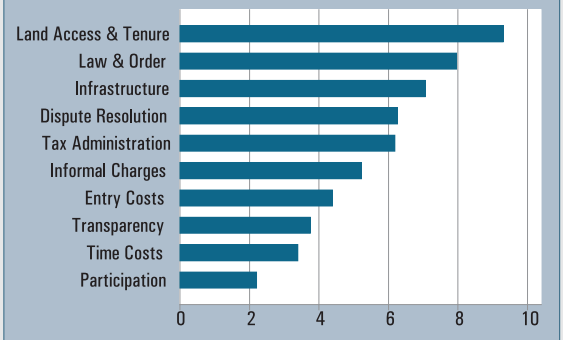
APPENDIX 4

Results by Districts (Strongest to Weakest in Descending Order)

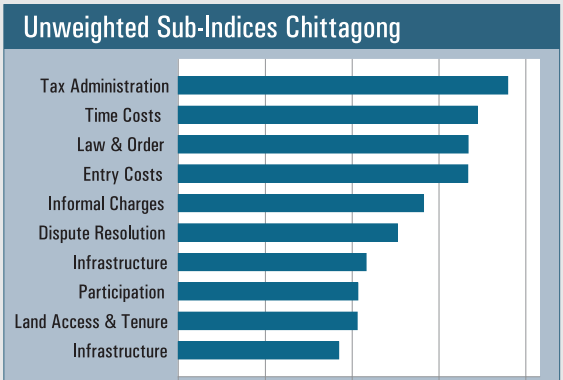
Unweighted Sub-Indices Barisal



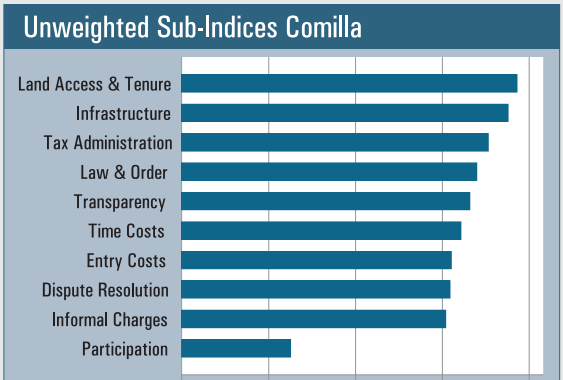
Unweighted Sub-Indices Bogra



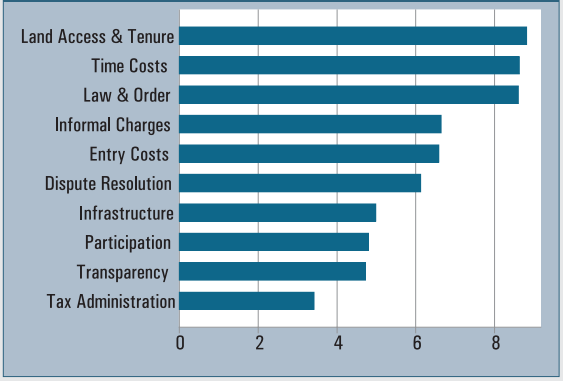
Unweighted Sub-Indices Chittagong



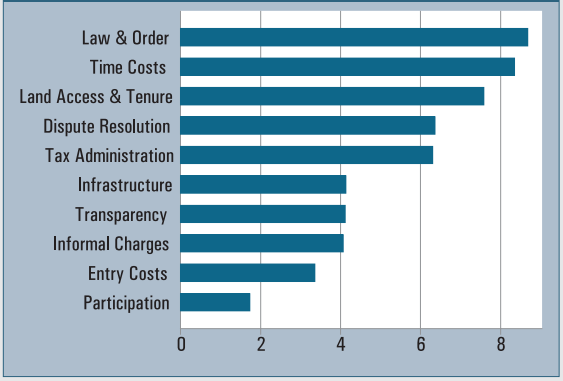
Unweighted Sub-Indices Comilla



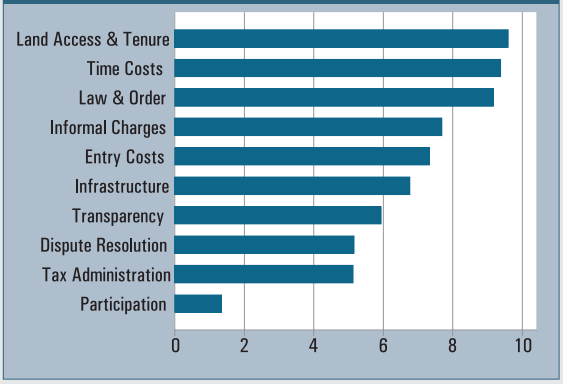
Unweighted Sub-Indices Cox's Bazar



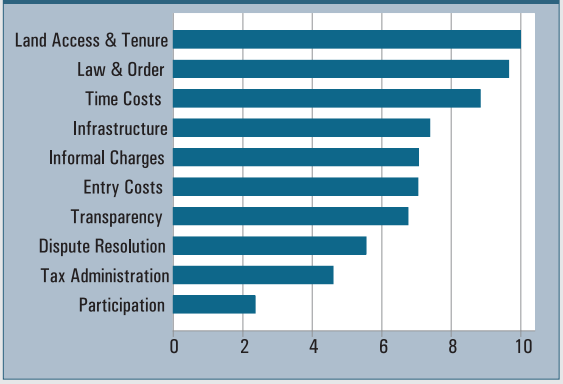
Unweighted Sub-Indices Dhaka



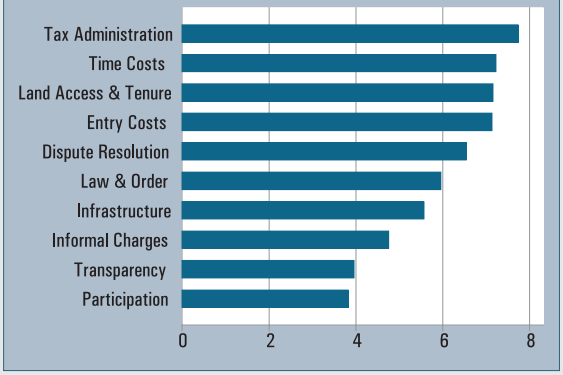
Unweighted Sub-Indices Dinajpur



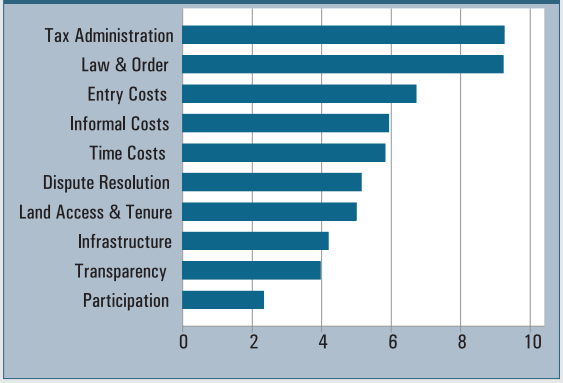
Unweighted Sub-Indices Faridpur



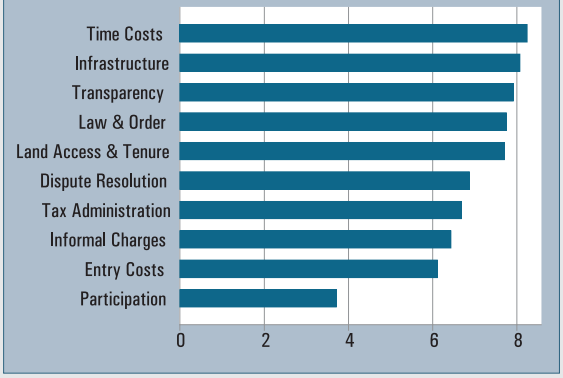
Unweighted Sub-Indices Jessore



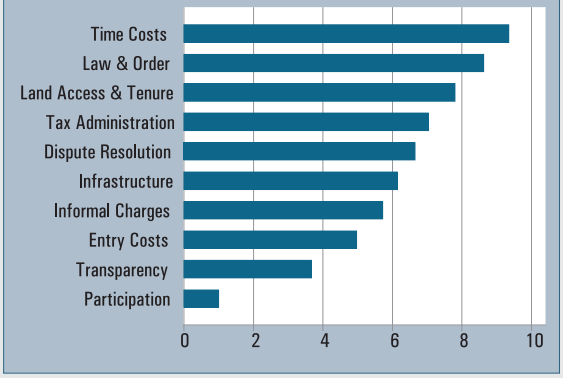
Unweighted Sub-Indices Khulna



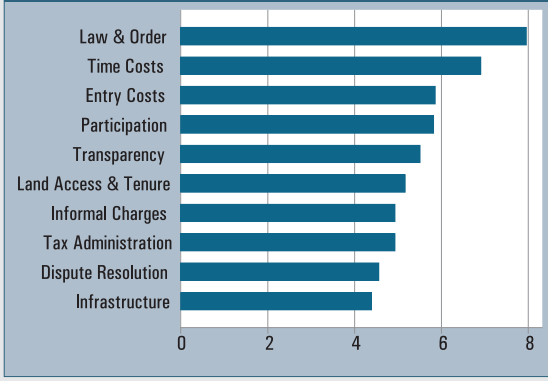
Unweighted Sub-Indices Kushtia



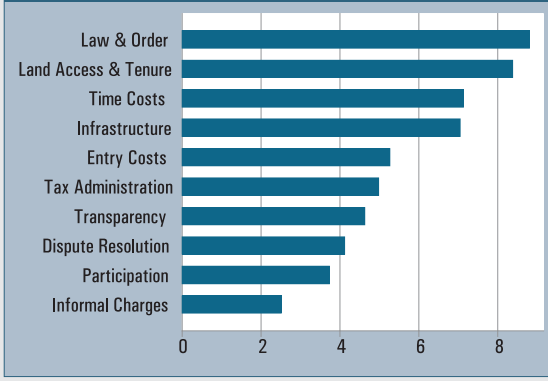
Unweighted Sub-Indices Mymensingh



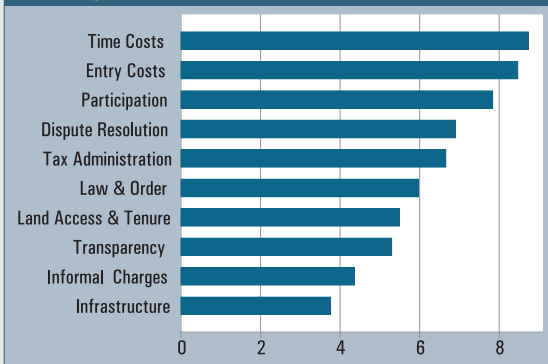
Unweighted Sub-Indices Noakhali



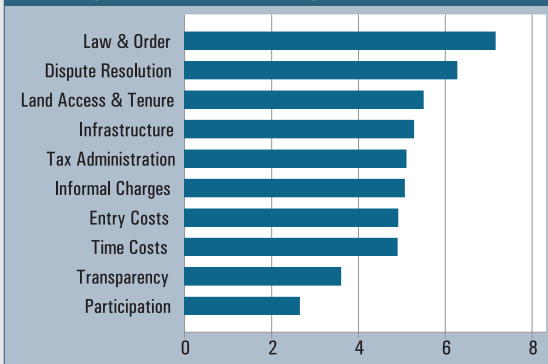
Unweighted Sub-Indices Pabna



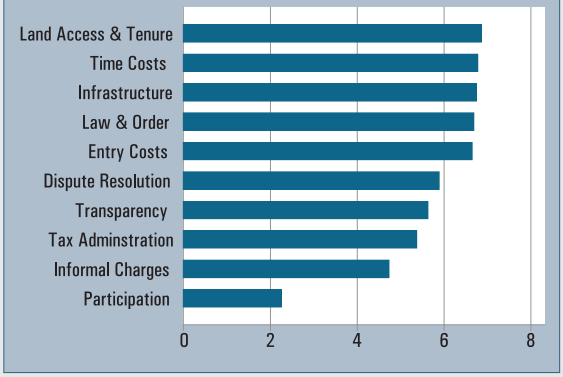
Unweighted Sub-Indices Patuakhali



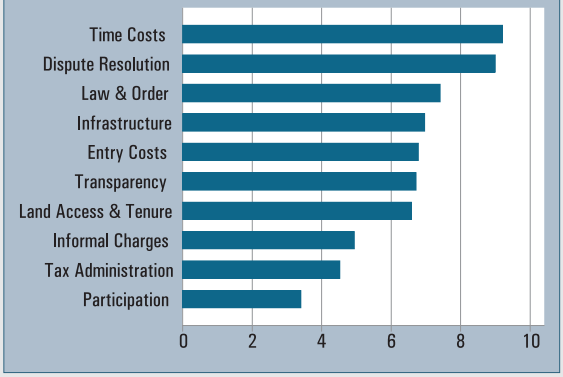
Unweighted Sub-Indices Rajshahi



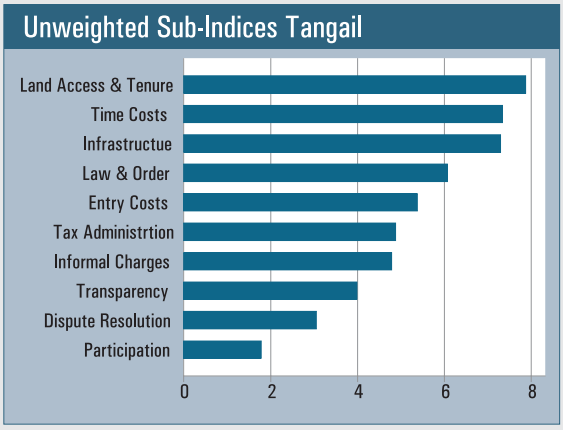
Unweighted Sub-Indices Rangpur



Unweighted Sub-Indices Sylhet



Unweighted Sub-Indices Tangail



APPENDIX 5

Bangladesh District Economic Governance Index (2010 EGI)
Sub-Index Data

ENTRY COSTS	Dimension 1: Time Costs and Procedures				Dimension 2: Monetary Costs			Sub-Index Score
District	Wait for Trade License (Median Days)	Wait for TIN Certificate (Median Days)	Wait for VAT (Median Days)	Percent Formal Firms	Fee for Trade License (Median)	Fee for TIN Certificate (Median)	Fee for VAT (Median)	Entry Costs
Survey	c001c	c003c	c004c	2001 BBS Firm Census	c001e1	c003e1	c004e1	
PATUAKHALI	2	3	3	89.64%	300	700	500	8.473991
BARISAL	5	6.5	5	92.32%	500	300	350	7.619482
DINAJPUR	2.5	2	3	77.27%	400	800	800	7.332833
JESSORE	3	7	7	75.39%	200	160	1200	7.140243
FARIDPUR	2	2	3	88.34%	300	800	2400	7.047587
SYLHET	4	5	3	86.75%	1000	400	300	6.784816
KHULNA	5	5	3	74.54%	275	0	1500	6.719748
CHITTAGONG	4	7	4.5	89.40%	500	900	1200	6.672424
RANGPUR	3	10	7	81.76%	300	1000	1000	6.651301
COX'S BAZAR	3	5	5	93.60%	300	1100	2400	6.595503
COMILLA	2	5	3	91.89%	300	2000	2400	6.215525
KUSHTIA	1	15	7	59.27%	200	1000	600	6.119686
NOAKHALI	2	10	7	95.00%	300	2000	2400	5.861082
TANGAIL	3	5	3	74.25%	300	2000	2000	5.387627
PABNA	5	7	7	75.20%	200	1500	1900	5.267035
MYMENSINGH	5	1	1	77.46%	400	2000	2400	4.977679
RAJSHAHI	5	5	5	72.25%	350	1500	2102.5	4.915864
BOGRA	5	15	20	76.20%	500	1000	1300	4.394185
DHAKA	4	7	7	79.31%	1000	2200	2400	3.364842

Notes: Restricted sample on median price for a trade license to firms with only 3-5 firms because prices for trade licenses vary by size.

LAND ACCESS AND TENURE	Dimension 1: Land Access		Dimension 2: Land Tenure		Sub -Index Score
District	Firms with Dalil	Getting Dalil Difficult or Very Difficult	Expropriation risk high or very high in this district	Rental risk high or very high	Land and Property Rights
Survey	d001a	d002a5	d005a	d010	
FARIDPUR	100.00%	0.00%	0.00%	1.71%	10
DINAJPUR	100.00%	0.00%	0.00%	12.06%	9.599555
BOGRA	100.00%	0.00%	0.00%	19.65%	9.306253
COX'S BAZAR	100.00%	16.18%	0.51%	12.39%	8.823374
PABNA	99.53%	12.46%	1.01%	21.15%	8.384822
TANGAIL	84.17%	11.12%	0.00%	9.96%	7.879172
MYMENSINGH	86.49%	8.49%	0.00%	19.69%	7.802041
COMILLA	95.34%	13.85%	1.21%	25.34%	7.728259
KUSHTIA	100.00%	38.44%	1.50%	11.35%	7.706951
DHAKA	100.00%	13.37%	3.66%	16.13%	7.59056
BARISAL	94.06%	22.47%	0.68%	29.97%	7.330092
JESSORE	95.58%	8.94%	3.89%	18.77%	7.166305
RANGPUR	100.00%	50.80%	0.81%	28.67%	6.864764
SYLHET	95.59%	37.98%	2.71%	18.88%	6.58578
RAJSHAHI	100.00%	45.94%	4.06%	36.74%	5.497242
PATUAKHALI	100.00%	50.45%	1.28%	59.87%	5.492391
NOAKHALI	89.67%	63.93%	4.25%	3.06%	5.174172
KHULNA	74.74%	24.22%	2.44%	26.91%	5.002927
CHITTAGONG	87.85%	49.37%	5.97%	22.58%	4.122385

TRANSPARENCY	Dimension 1: Access & Equity of Documents			Dimension 2: Predictability of Laws & Policies		Dimension 3: Rating of Access to Documents			Sub -Index Score
District	Access to Documents	Relationship with official is frequently or always necessary to get documents	Firms very or reasonably well informed about existing laws and policies	Always or frequently changes in central government laws that materially affect the firm	Always or frequently receive advanced notice about these changes	Trade license office	Tax office	VAT office	Transparency
Survey	f00f1f-m	f002	f003	f005a	f005b	Visit	Office Visit	Visit to Office	
KUSHTIA	60.93%	27.16%	52.88%	2.28%	1.31%	2	3	2	7.920914
FARIDPUR	29.18%	13.90%	4.27%	2.29%	0.00%	4	2	2	6.757948
SYLHET	42.24%	28.87%	5.75%	5.06%	9.43%	4	2	2	6.724574
COMILLA	77.37%	6.99%	33.75%	0.17%	29.20%	2	2	2	6.635645
DINAJPUR	12.85%	1.77%	51.69%	0.00%	0.00%	2	2	4	5.939422
RANGPUR	29.18%	41.01%	28.67%	1.39%	22.61%	2	2	4	5.632872
NOAKHALI	29.17%	23.48%	32.27%	1.29%	32.59%	2	2	2	5.515551
PATUAKHALI	39.08%	31.21%	18.03%	11.10%	36.74%	2	2	4	5.300726
BARISAL	28.43%	43.46%	17.03%	6.22%	31.42%	2	2	4	5.167464
COX'S BAZAR	40.90%	30.11%	23.98%	6.86%	31.66%	2	2	2	4.730136
PABNA	27.08%	34.76%	18.33%	3.34%	5.52%	2	2	4	4.631261
DHAKA	19.55%	8.92%	26.27%	2.48%	0.00%	2	2	2	4.121644
TANGAIL	27.05%	9.84%	0.28%	0.00%	0.00%	2	2	2	3.995987
KHULNA	26.62%	38.08%	36.91%	9.93%	12.85%	2	2	3	3.968914
JESSORE	54.15%	46.04%	36.00%	4.45%	4.62%	2	2	2	3.964419
BOGRA	21.76%	34.14%	35.57%	2.72%	0.66%	2	2	2	3.762263
CHITTAGONG	39.63%	21.44%	19.80%	13.50%	9.76%	2	2	3	3.694958
MYMENSINGH	40.68%	28.78%	17.35%	4.52%	1.74%	2	2	2	3.669184
RAJSHAHI	11.69%	31.74%	15.21%	1.72%	5.89%	2	2	2	3.601228

TIME COSTS OF REGULATORY COMPLIANCE	Dimension1: Time Costs of Regulatory Compliance			Sub-Index Score
District	Duration of VAT Inspections (Median Minutes)	Number of Days it takes to obtain a Dalil (Median Days)	Percentage firms that spend over 15 days dealing with regulatory compliance	Time Costs of Regulatory Compliance
Survey	**h002b2**	**d002a3**	**h001**	
DINAJPUR	7.5	18	1.92%	9.380
MYMENSINGH	10	15	0.00%	9.358
SYLHET	10	25	0.21%	9.212
FARIDPUR	10	60	0.46%	8.845
PATUAKHALI	10	10	2.31%	8.736
COX'S BAZAR	10	60	1.18%	8.638
DHAKA	10	30	3.03%	8.361
KUSHTIA	10	30	3.42%	8.248
TANGAIL	10	227.5	0.76%	7.343
JESSORE	10	150	3.44%	7.229
PABNA	12	30	5.63%	7.134
NOAKHALI	15	90	2.12%	6.916
CHITTAGONG	15	30	3.96%	6.893
BARISAL	15	17.5	4.61%	6.814
RANGPUR	10	30	8.52%	6.784
COMILLA	20	12	1.92%	6.431
KHULNA	10	180	7.44%	5.827
RAJSHAHI	20	10	7.33%	4.895
BOGRA	10	365	10.45%	3.400

INFORMAL COSTS	Dimension 1: Firm Corruption			Dimension 2: Systemic Corruption				Sub-Index Score
District	Firms reporting that Informal payments occur in their line of business	Firms always or frequently know how much the informal payment will be	Firms always or frequently get the expected service for the additional payment	Public procurement contracts are always or frequently transparent	Public Procurement Contracts are fair	Personal connections with government officials important or very important	Personal connections with political parties important or very important	Informal Costs
Survey	**i001**	**i003**	**i004**	**i007**	**i008**	**i0011a**	**i0011b**	
DINAJPUR	27.66%	100.00%	95.67%	0.00%	0.00%	0.00%	0.00%	7.689042
FARIDPUR	60.62%	95.38%	97.64%	18.78%	32.18%	15.94%	34.70%	7.065819
COX'S BAZAR	59.21%	80.68%	89.64%	32.57%	45.56%	40.89%	51.66%	6.650434
KUSHTIA	54.75%	83.35%	87.30%	72.32%	23.33%	55.97%	67.25%	6.440138
COMILLA	72.51%	75.24%	98.28%	62.73%	45.35%	65.06%	82.79%	6.080965
KHULNA	51.79%	93.78%	96.41%	22.91%	23.30%	63.30%	76.23%	5.937624
MYMENSINGH	57.84%	95.66%	95.18%	13.52%	5.57%	36.09%	62.76%	5.723648
CHITTAGONG	64.90%	76.17%	70.24%	23.93%	31.78%	39.21%	38.91%	5.653683
BOGRA	73.31%	89.34%	96.15%	1.58%	6.19%	30.31%	50.10%	5.230324
RAJSHAHI	57.00%	59.45%	70.48%	34.96%	18.51%	51.93%	56.36%	5.062316
SYLHET	63.88%	82.44%	80.15%	9.14%	24.53%	55.66%	73.96%	4.943403
NOAKHALI	45.72%	12.42%	51.09%	45.93%	28.92%	36.44%	45.17%	4.939394
TANGAIL	52.49%	73.68%	73.68%	5.70%	16.54%	56.91%	68.62%	4.792146
JESSORE	51.23%	50.07%	79.25%	30.80%	9.63%	53.79%	73.54%	4.75902
RANGPUR	63.48%	59.54%	44.48%	18.88%	37.18%	41.54%	46.32%	4.740637
BARISAL	62.46%	75.66%	72.93%	8.87%	19.98%	60.04%	59.09%	4.710119
PATUAKHALI	65.46%	87.90%	90.52%	10.82%	8.06%	79.58%	85.96%	4.360848
DHAKA	76.26%	72.48%	43.59%	24.19%	26.08%	45.27%	64.37%	4.076878
PABNA	65.92%	32.30%	34.00%	19.08%	7.40%	53.19%	89.84%	2.512354

PARTICIPATION	Dimension 1: Participation			Sub-Index Score
District	Member of Business Association	Local government always or frequently engages with firms like yours when a new law is introduced	Informed about Existing Laws	Participation
Survey	g004	g002	f004	
PATUAKHALI	52.84%	9.74%	4.31%	7.842741
NOAKHALI	37.21%	2.78%	8.28%	5.828738
COX'S BAZAR	57.54%	1.23%	2.07%	4.80694
CHITTAGONG	61.40%	0.00%	0.38%	4.136955
JESSORE	49.01%	0.86%	1.66%	3.828938
PABNA	49.78%	1.14%	0.99%	3.736106
KUSHTIA	53.75%	0.53%	0.53%	3.715837
BARISAL	35.17%	2.79%	2.78%	3.666555
SYLHET	36.30%	4.67%	0.21%	3.409553
RAJSHAHI	36.86%	0.97%	1.13%	2.649999
COMILLA	39.64%	0.11%	0.83%	2.510035
FARIDPUR	41.81%	0.00%	0.00%	2.356979
KHULNA	33.74%	0.27%	1.58%	2.336325
RANGPUR	30.83%	1.16%	1.29%	2.258851
BOGRA	37.46%	0.72%	0.00%	2.212947
TANGAIL	34.08%	0.00%	0.23%	1.790796
DHAKA	30.56%	0.70%	0.29%	1.733956
DINAJPUR	27.02%	0.75%	0.00%	1.346226
MYMENSINGH	25.63%	0.00%	0.00%	1

Notes: Restricted the sample on business association membership to just trade firms because business association membership is differentially correlated to the type of firm.

LAW & ORDER	Dimension 1: Explicit Loss from Crime		Dimension 2: Spending on Security		Sub-Index Score
District	Experienced Extortion in Past Year	Loss from Crime/Total Sales	Make Protection Payments to police or mastans	Security Spending/Total Sales	Law and Order
Survey	**j001a**	**j001b**	**j002a-j002b**	**j003a-j003b**	
FARIDPUR	4.86%	2.00%	0.00%	0.15%	9.660
KHULNA	5.01%	6.61%	0.48%	0.06%	9.231
DINAJPUR	3.76%	4.11%	0.75%	0.17%	9.169
PABNA	3.85%	5.71%	1.80%	0.07%	8.812
DHAKA	5.14%	3.46%	2.01%	0.14%	8.689
MYMENSINGH	3.52%	11.06%	0.23%	0.20%	8.631
COX'S BAZAR	13.63%	3.56%	0.89%	0.13%	8.613
BOGRA	4.88%	4.50%	3.35%	0.18%	7.971
NOAKHALI	14.36%	5.72%	1.67%	0.16%	7.965
KUSHTIA	6.23%	7.66%	2.79%	0.20%	7.755
SYLHET	3.14%	5.11%	1.06%	0.79%	7.416
RAJSHAHI	3.52%	7.03%	4.77%	0.21%	7.155
COMILLA	5.90%	25.03%	0.69%	0.25%	6.802
RANGPUR	6.82%	18.04%	2.71%	0.21%	6.692
CHITTAGONG	10.50%	3.88%	5.56%	0.21%	6.680
TANGAIL	4.54%	19.63%	4.78%	0.13%	6.075
PATUAKHALI	37.21%	5.64%	3.47%	0.06%	5.973
JESSORE	10.41%	10.08%	4.46%	0.44%	5.961
BARISAL	25.70%	5.69%	2.74%	0.95%	4.791

TAX ADMINISTRATION	Dimension 1: Tax Administration				Sub-Index Score
District	Firms Paying Any Taxes	Firms Paying VAT or Turnover Taxes*	Collecting Taxes is Effective or Very Effective	Negotiation with Tax Authority is Part of Doing Business	Tax Administration
Survey	k001a-k001e	k001a & k001c	k002	k0004	
KHULNA	81.40%	70.74%	69.83%	18.80%	9.25878
JESSORE	69.75%	57.81%	58.01%	11.94%	7.738307
CHITTAGONG	77.86%	61.41%	44.85%	22.82%	7.58737
COMILLA	67.35%	55.17%	60.10%	22.52%	7.067038
MYMENSINGH	67.27%	62.10%	49.11%	21.70%	7.038079
KUSHTIA	64.26%	46.74%	56.37%	14.46%	6.686439
PATUAKHALI	68.32%	57.27%	48.11%	26.54%	6.661327
DHAKA	67.79%	57.39%	34.31%	23.11%	6.314822
BOGRA	68.63%	53.84%	16.77%	10.12%	6.187609
RANGPUR	67.56%	56.03%	38.17%	46.39%	5.377377
DINAJPUR	73.87%	24.10%	2.14%	1.35%	5.135706
RAJSHAHI	75.69%	54.31%	24.59%	54.32%	5.103021
PABNA	53.13%	49.04%	29.52%	16.88%	4.985096
NOAKHALI	65.37%	36.88%	26.43%	23.86%	4.935587
BARISAL	55.45%	44.90%	55.88%	38.63%	4.923134
TANGAIL	53.81%	47.56%	9.70%	3.42%	4.882464
FARIDPUR	70.18%	19.99%	6.05%	6.34%	4.602958
SYLHET	50.41%	45.95%	26.23%	17.13%	4.531572
COX'S BAZAR	54.46%	23.09%	19.62%	21.16%	3.420401
Notes: Restricted sample on all variables to trade firms because all tax variables were differentially correlated to firm type.					

DISPUTE RESOLUTION	Dimension 1: Confidence in Upholding Property Rights		Dimension 2: Satisfaction with Dispute Resolution Mechanisms		Sub-Index Score
District	**Confidence that legal system will uphold contracts**	**Fair Process to Dispute Changes in Rental Contracts**	**Use of Local Formal Institutions**	**Satisfaction with Chosen Dispute Resolution Mechanism**	**Dispute Resolution**
Survey	**e001**	**d012**	**e002f2**	**e002a3-e002h3**	
SYLHET	72.12%	90.65%	75.10%	95.36%	9.006918
PATUAKHALI	71.17%	77.69%	25.55%	92.50%	6.901543
KUSHTIA	84.44%	79.70%	21.94%	78.72%	6.879393
MYMENSINGH	46.25%	92.12%	21.53%	94.33%	6.658492
JESSORE	69.90%	80.43%	38.31%	63.87%	6.544883
DHAKA	63.88%	73.23%	15.74%	97.86%	6.365161
RAJSHAHI	66.88%	79.25%	10.19%	89.03%	6.276697
BOGRA	53.89%	90.61%	16.21%	80.04%	6.264118
COMILLA	99.06%	91.20%	0.00%	45.80%	6.181989
COX'S BAZAR	69.86%	88.37%	10.73%	67.45%	6.132066
RANGPUR	57.39%	78.40%	5.73%	91.53%	5.896805
FARIDPUR	55.71%	82.59%	0.00%	81.44%	5.555596
DINAJPUR	50.54%	63.40%	0.00%	100.00%	5.167699
KHULNA	57.16%	76.40%	0.00%	73.90%	5.141151
CHITTAGONG	65.51%	66.54%	15.47%	59.33%	5.05266
BARISAL	51.00%	71.51%	16.09%	50.04%	4.572221
NOAKHALI	52.43%	76.86%	35.27%	20.37%	4.562613
PABNA	47.16%	64.82%	10.46%	53.41%	4.119885
TANGAIL	23.67%	35.14%	0.00%	93.14%	3.056068

INFRASTRUCTURE	Dimension 1: Infrastructure Quality			Dimension 2: Infrastructure Availability			Sub-Index Score
District	Factor Analysis of Infrastructure Variables (Factor Score 2)	Power Outages During the Day (Median Number of Times)	Percentage of Paved Roads/Total Roads	Factor Analysis of Infrastructure (Factor Score 1)	KM of Total Road per Square KM of the District	KM of Paved Road per Square KM of the District	Infrastructure
Survey	m001a-m001h	m002	BBS Statistical Yearbook 2007	m001a-m001h	BBS Statistical Yearbook 2007	BBS Statistical Yearbook 2007	
KUSHTIA	1.139365	2	76.57%	0.2689899	0.2701971	0.2069025	8.077748
COMILLA	0.3693953	2	86.81%	0.0591004	0.2280037	0.1979275	7.524889
FARIDPUR	0.400489	2	79.03%	0.9874586	0.1412878	0.1116649	7.389609
TANGAIL	0.4806464	2	81.89%	0.9156786	0.1201703	0.0984146	7.297351
BOGRA	0.1335836	2	82.36%	0.1586874	0.212336	0.1748861	7.063479
PABNA	0.0378717	3	87.84%	0.535445	0.2043559	0.1794982	7.057364
SYLHET	-0.057027	2	84.90%	0.5847332	0.1476679	0.1253725	6.970729
DINAJPUR	0.7280084	2	97.80%	-0.2442235	0.1133456	0.1108471	6.7725
RANGPUR	0.2682034	2	93.53%	0.0030004	0.1315531	0.1230484	6.753414
MYMENSINGH	0.4276335	2	85.50%	-0.0816728	0.115731	0.0989531	6.138173
JESSORE	0.6690041	3	86.88%	-0.2684598	0.1273839	0.1106667	5.579215
RAJSHAHI	0.1340145	3	95.02%	-1.121794	0.1902983	0.1808177	5.278234
COX'S BAZAR	-0.1292216	3	64.02%	0.0381765	0.2171229	0.1390126	4.988581
NOAKHALI	-0.9213116	4	86.50%	0.318042	0.1085257	0.0938714	4.395408
BARISAL	-0.4519313	3	76.49%	-0.0773292	0.1146708	0.087708	4.389243
CHITTAGONG	0.2113313	4	71.46%	0.3599385	0.1036044	0.0740415	4.329505
KHULNA	-0.2688654	2	80.95%	-0.8069616	0.0855099	0.0690324	4.198777
DHAKA	-0.1787227	2	59.70%	-0.8980804	0.2142935	0.1279926	4.143557
PATUAKHALI	-0.2682927	2	71.37%	-0.8129246	0.0935671	0.0667919	3.763768

To implement the first edition of the Bangladesh Economic Governance Index (BEGI), The Asia Foundation has received financial support from the Bangladesh Investment Climate Fund (BICF). The BEGI is part of the Local Economic Governance Program – Enhancing the Sustainability and Stakeholder Ownership of Investment Climate Reforms in Bangladesh.

The Bangladesh Investment Climate Fund (BICF) provides advisory services aimed at improving business operating environment in Bangladesh. BICF is managed by IFC, in partnership with the U.K Department for International Development and the European Union. Its objectives are consistent with the Bangladesh government's strategic vision for private sector development within its poverty reduction strategy. Government agencies and BICF—in close collaboration with the key stakeholders in Bangladesh—jointly design and implement programs to institute business friendly policies, laws and regulations, and strengthen the institutions that implement them.

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