

# County Business Environment for Micro and Small Enterprises in Kenya

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**Kenya Institute for Public Policy  
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## **Abbreviations and Acronyms**

AGPO	Access to Government Procurement Opportunities
CBEM	County Business Environment for MSEs
CRB	Credit Reference Bureau
DTF	Distance to Frontier
EACC	Ethics and Anti-Corruption Commission
EDBI	Ease of Doing Business Indicators
GDP	Gross Domestic Product
KIRDI	Kenya Industrial Research and Development Institute
KIPI	Kenya Industrial Property Institute
MSE	Micro and Small Enterprise
MSEA	Micro and Small Enterprises Authority
MSME	Micro, Small and Medium Enterprise



## EXECUTIVE SUMMARY

Improving the business environment for MSEs is a catalyst to leveraging fully on the potential of MSEs in contributing to the development agenda of the country. The MSMEs Survey of 2016 estimates that the MSEs sector in Kenya contributes 23.6 per cent and 24.7 per cent of the gross value addition and national output, respectively. Equally, 14.9 million persons are engaged in the MSMEs sector, which is approximately 98 per cent of the total working population in the economy (registered as 15.163 million persons). The micro and small enterprises constitute about 81 per cent (12.28 million persons) of the total population working in the MSMEs sector.

This paper has developed a County Business Environment for MSEs (CBEM) framework to facilitate in identifying key issues that require policy interventions in creating an enabling environment for the MSEs sector. The framework covers five areas critical for smooth operations of MSEs, including: worksites and adequacy of their infrastructure; market environment; financial and technical capacity; and governance and regulatory framework. A total of 20 indicators were considered and using the Distance to Frontier approach (DTF), various sub-indicators were constructed and used to rank the counties. There were significant disparities in performance across the various indicators and across the counties. Self-regulation ranked high among the indicators, implying that establishment of MSE associations strengthens the voice of MSEs in improving the business environment. Innovation and patenting scored lowest, reflecting the weak position that MSEs find themselves in coping with technological dynamics. On average, the counties that ranked high in enhancing business environment for MSEs include Nairobi, Nyandarua, Nakuru, Kisumu and Laikipia.

### ***a) Worksites and adequacy of their infrastructure***

A significant proportion of MSEs operate in illegal sites, heightening their vulnerability to demolition by the national and county governments. There is also limited land to construct worksites, in some cases inappropriate locality for the worksites and inability of the existing worksites to meet growing demands. Further, MSEs' workshops are inadequate and lack safety gears, limiting the use of common manufacturing facilities. While electricity connection ranks high among the 20 indicators, various challenges require attention, including power outages,



connection costs and pending bills. Other key challenges facing MSEs include the cost of water connection especially where contractors handed incomplete projects, poor drainage and sewerage system, and lack of waste disposal facilities.

To create an enabling environment for MSEs to operate, the national government through institutions such as Micro and Small Enterprises Authority (MSEA) and Kenya Industrial Estates (KIE), and the county governments need to work closely to facilitate development of adequately equipped worksites designated for MSEs to save them from sporadic disruptions caused by demolitions and save on cost of production. Construction of worksites should factor in easy access to markets, amenities and growth.

### ***b) Market environment for MSEs***

Generally, the uptake of AGPO in prequalification is low amongst MSEs due to information asymmetry. There is a huge disparity in distribution of road infrastructure across counties, which is important for MSEs access to inputs and markets. Further, there are challenges on MSEs acquiring certification that allows their access to local, national and international markets, and unhealthy competition and unfair trade practices which impact on ability of MSEs to grow their trade.

To improve on market environment for MSEs, the national government through the AGPO Secretariat need to promote and enhance sensitization of MSEs on the affirmative platform. Further, enhancing road infrastructure to facilitate trade, and sensitizing MSEs on how to produce goods of quality and acceptable standards will go a long way in facilitating their competitiveness to both domestic and international markets.

### ***c) Financial and technical capacity***

The MSEs have moderate uptake of financial innovations such as M-pesa and M-shwari which offer alternative sources of financing to the traditional banking sector. Innovation is also low among the MSEs due to high costs of innovation, coupled with lack of incentives to innovate and limited finance to fund innovative ideas, and cumbersome patenting processes.

MSEs need to be sensitized on financial innovations that can be used as avenues for accessing external financing to cover both working capital and long-term investment. The use of services such as Credit Reference Bureau are avenues for promoting self-awareness in matters of financial integrity and credibility that MSEs need to embrace. This will support them in accessing credit from the traditional

banking sector. On innovation and patenting, MSEs should be encouraged to come out of their comfort zones through exposures such as exhibitions. The national government should subsidize cost of innovation through KIRDI and promote the need to acquire intellectual property rights through patenting with support of KIPI. Further, there is need to initiate a national technical training, apprenticeship and certification programme to ensure standardization of skills development and of products.

***d) Governance and regulatory framework***

Corruption, governance and security issues tend to increase cost of doing business for MSEs. These and other factors also contribute to a good number of MSEs closing shop before their third anniversary in business. However, service provision initiatives particularly licensing and issuance of permits by the national government through *Huduma* centres are bearing fruit.

The county governments should root out corruption traits in revenue collection by adopting digitization on all platforms of revenue collection. Further, there is need for counties to legislate and harmonize the number of licenses or permits obtained by MSEs with an intent of reducing the bureaucracies involved.



## 1. INTRODUCTION

MSEs play a vital role in job creation and income generation as evidenced in MSME 2016 Survey (KNBS, 2016). For example, MSEs contribute 24.7 per cent to the national output and 23.6 per cent to the gross value addition. MSEs also employ about 81 per cent of the total working population in the MSMEs (12.28 million persons). MSEs include both formal and informal firms employing 1-50 workers (GOK 2012). Further, MSEs in Kenya are an integral part in economic development of the country because they increase competition, foster innovation and provide goods and services. Economies in Sub-Saharan Africa estimate that MSEs account for 98 per cent of all enterprises (Fjose *et al.*, 2010). The distribution of MSMEs across sectors reveals that majority (84.5%) are in the services sector while manufacturing accounts for 11.8 per cent, agribusiness accounts for 3.3 per cent and construction, mining and quarrying accounts for 0.5 per cent. However, in the manufacturing sector in Kenya, MSEs account for 95 per cent of the enterprises. As such, in the industrialization process, there is need to pay attention to the business environment of MSEs given the direct and indirect linkages in the value chain.

Despite the significant potential that MSEs have in contributing to the development agenda, they face various challenges as noted in a several studies (Kimuyu et al, 1998; Moyi and Njiraini, 2005; KIPPRA, 2019). First, is the worksite environment where MSEs tend to have challenges with allocation of adequate land for construction of worksites and accessing worksites that are adequately equipped with necessary infrastructure, including water and sanitation, electricity, and waste management. Secondly, in the market environment, MSEs face unfair local and foreign competition, lack market for their products, and experience poor road infrastructure to facilitate access to markets. Thirdly, on technical capacity, MSEs faced with skills gap, inadequate incubation services, limited access to common manufacturing services, impacts of HIV-AIDS and unfavorable credit conditions. Fourthly, are challenges with government regulations, licensing requirements, taxes, and security. That said, there is no structured way of monitoring the actions taken to address these issues.

The Third Medium Term Plan (2018-2022) of the Vision 2030 has identified several programmes and projects targeted for the MSEs sector (GOK, 2018). Key among them is the MSMEs Development Programme aimed at introducing a wide range of support services including skills development, provision of worksites,

incubation, innovation and technology transfer, provision of financing, quality improvement, branding and market access. Furthermore, there are initiatives aimed at enhancing the countries industrial base by promoting MSEs by establishing MSE model factories, scaling up support to enhance MSE product competitiveness, promoting entrepreneurship culture, developing and updating MSE inventory, promoting access to markets for MSE products, formation of MSE associations and umbrella organizations, and development and upgrading of MSE infrastructure. Countries such as India and Japan have built their industrial base on SMEs supported by policy and government institutions. As such, having a clear framework to help in monitoring the implementation of such initiatives will go a long way in supporting growth and development of MSEs.

Kenya is among the countries analyzed in the World Bank Doing Business report which aims at improving the business environment for private sector growth. Currently, Kenya is ranked position 61; which is an improvement from position 80 and 92 in 2018 and 2017, respectively, in the Ease of Doing Business index (World Bank, 2018). The index though focuses on regulations from the perspectives of small and medium-size firms, and whether an economy has in place the rules and processes that can lead to good outcomes for entrepreneurs to grow their economic activities (Appendix 1). With the heterogeneous nature of challenges faced by entrepreneurs across the country, 11 counties are included at sub-national doing business survey, including: Nairobi, Isiolo, Kakamega, Busia, Kiambu, Kisumu, Machakos, Mombasa, Narok, Nyeri and Uasin Gishu counties (World Bank, 2016). This means less than a quarter of the counties were covered and, therefore, specific factors across most of the counties are not captured.

Improving business environment for MSEs is a priority in reaping the full potential of MSEs. It is in this context that a framework to assess the business environment for MSEs at county level in Kenya is developed. The framework goes beyond the business regulation to include broader business environment indicators that constrain growth and development of MSEs. The framework is expected to play a critical role in identifying specific issues at county level that require policy interventions and support in monitoring implementation and in improving the business environment. Efforts will be made to update the framework regularly and share the results with county governments to enable them prioritize their policy interventions.

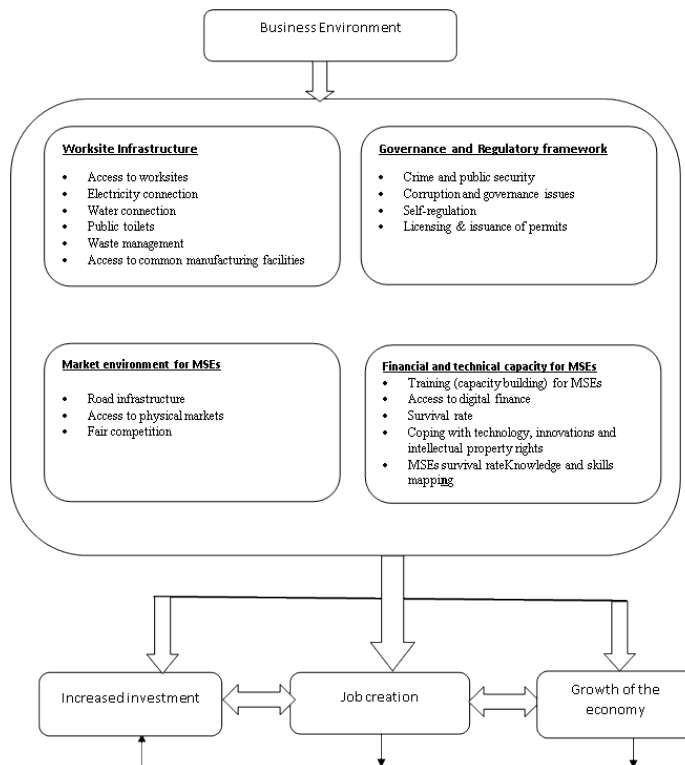
The rest of the paper is organized as follows. Section 2 covers the methodology used in constructing the framework, section 3 reports the characteristics of business environment for MSEs across the counties delivered from the survey undertaken, and section 4 provides the conclusions and policy implications.

## 2. METHODOLOGY

### 2.1 Conceptual Framework

Borrowing from the literature, the business environment for MSEs is conceptualized within the following components: worksite and its infrastructure, market environment for MSEs, financial and technical capacity of MSEs and governance and regulatory framework (Figure 1). These four areas are critical for smooth operations of MSEs. In each component, several indicators and sub-indicators that relate to the components are identified (Table 1). Improvement in performance of these indicators implies enhanced business environment for MSEs, which results into increased investment, creation of employment opportunities and growth of the economy.

**Figure 1: Conceptual framework on the business environment for MSEs**



Source: Authors

**Table 1: County business environment for MSEs (CBEM) indicators and sub-indicators**

Indicator	Sub-indicators
<b>Worksite infrastructure</b>	
Access to worksites (An area or location set aside for micro and small enterprises' operations with or without supportive infrastructure)	Procedures undertaken to access worksites; official costs involved; time taken to fulfill procedures; distance to worksites and probability to operate in legal worksites
Electricity connection	Procedures undertaken to access electricity within a worksite; official cost of connection; time taken to connect; average electricity bill amount payable monthly; number of power outages experienced in a month and number of times for monitoring electricity supply
Water connection	Procedures undertaken to connect worksites to water; official cost of connection; time taken to connect; average water bill amounts payable monthly; average number of times water shortage is experienced in a month and average number of times the utility company monitors water supply within a worksite
Public toilets	Distance taken to access the nearest public toilet; time taken; and costs involved
Waste management	Procedures undertaken to benefit from waste management services; time taken to complete the procedures; costs involved to fulfill the procedures; average monthly costs of using waste management services; average distance to the nearest waste disposal point; and average number of times to monitor waste disposal-related activities per month
Access to common manufacturing facilities (common manufacturing facilities are facilities that MSMEs use to process their products)	Procedures undertaken to benefit from common manufacturing facilities; distance, time taken, and official costs involved
<b>Market environment for MSEs</b>	
Access to Government Procurement Opportunities	Procedures undertaken for prequalification into AGPO; time taken, and official costs involved
Road infrastructure	Distance taken to access the nearest tarmac road; time taken; and costs involved
Access to markets	Average distance and time taken to nearest market and the average county levies imposed on traders per month
Unfair competition	Frequency of manifestations of unfair competition practices among MSEs
<b>Financial and technical capacity for MSEs</b>	
Training (capacity building) for MSEs	Number of MSE proprietors trained and average costs involved
Access to digital finance	Frequency use of financial innovations such as M-pesa; M-Shwari; M-akiba and CRB
Coping with technology, innovation and patenting	Percentage of MSEs with patented innovations in the last 1 year to the total membership of MSE associations

Knowledge and skills mapping	Technical skills gap and the costs involved in MSE operators obtaining training in technical skills
MSEs survival rate	Percentage of MSEs that have closed shop in the last 3 years the total membership of MSE associations
<b>Governance and regulatory framework</b>	
Self-regulation	Procedures followed to register into an association; average time taken; and costs involved
Corruption and governance at worksites	Frequency of victimization with corruption and governance issues at worksites and the amount lost last 1 month)
Crime and public security	Prevalence of crime; average distance and time taken to the nearest police station from the worksite
Licensing and issuance of permits	Number of permits; costs in acquisition and renewals; and time taken for acquisitions and renewals

Source: Authors and World Bank (2018a)

## 2.2 Analytical Approach

The County Business Environment for MSEs (CBEM) framework follows the World Bank distance to frontier (DTF) approach (World Bank, 2018b). In constructing the scores for the indicators, two steps are involved. First, all the responses for each sub-indicator are analyzed and categorized in terms of the best (here-in referred to as the frontier) and the worst. The score for the sub-indicator is then calculated as shown in equation 1.

$$(Worst - y)/(Worst - Frontier) \dots\dots\dots (1)$$

Where *y* is the response given for each sub-indicator, *Worst* implies worst performance and *Frontier* indicates best performance within each sub-indicator. The score ranges from zero (0) to one (1).

The second step is to average all the scores for sub-indicators to obtain a score for each indicator. The average method is used because it is assumed all sub-indicators entering the indicator have equal importance.

## 2.3 Target Group

The CBEM framework targets all the 47 counties. In the assessment of the business environment, the MSE associations were targeted respondents. MSE associations play an important role in supporting MSEs in various ways including: promoting interagency linkages through sectoral and/or cluster associations and improving market access through strategies such as business-matching and exhibitions; lobbying and advocacy; provision of business development services; research and



information dissemination activities; incubation and infrastructural services and training. In undertaking these functions, MSE associations work in collaboration with the national government through MSEA on all the issues that affect MSEs. They also work with relevant departments of trade in the county governments in liaison with the County Enterprise Development Officers (CEDOs), who are officers from MSEA on aspects relating to worksite infrastructure, market environment for MSEs, governance and regulatory frameworks and technical capacity for MSEs. Associations also work closely with private sector players and non-governmental institutions again in liaison with the CEDOs to support MSEs on issues of training, financing, business development and infrastructure among others. The law provides for MSE associations to be legally established and registered with the registrar of associations under the Authority (MSEA). Through MSEA and relevant agencies, MSE associations lobby for some of the issues used in developing the indicators in our framework such as crime and public security, and issuance of licenses and permits.

Data from MSEA shows that, currently, there are 489 associations operating countrywide with a membership of 50,595 MSEs. The membership is drawn from key sectors of the economy that include: trade, agribusiness, manufacturing and services spread across all the counties. The officials of the associations were interviewed using a structured questionnaire. The responses obtained represented the prevailing circumstances faced by MSEs in the membership. It is important to note that the leadership of the MSE associations comprise of persons who are also entrepreneurs and are therefore aware of the business environment facing MSEs.

#### **2.4 Sample Size**

A list of all MSE associations was obtained from MSEA. A total of 489 associations were identified to be in operation across the counties as indicated in Appendix 2. To be as representative as possible, all the operating associations were considered for the survey. However, due to logistical challenges and unavailability of some association officials during the fieldwork exercise, only 369 MSE associations were responsive, which was a response rate of 76 per cent. These associations represented about 38,452 MSEs out of the 50, 595 MSEs who are members of the associations. CEDOs provided contacts of association officials for each operating association.

Weighting of the data was done to address issues of non-bias and non-response. This was important considering the varying probabilities of an MSE association being responsive amongst all registered and operating MSEs associations. Weights were computed based on the probability of an association being responsive.

Further, weights were computed based on the probabilities of an association being selected within a county. The product of the two weights gave the overall weight per county.

### 3. CHARACTERIZING THE COUNTY BUSINESS ENVIRONMENT FOR MSEs

#### 3.1 Overall Score and Ranking of Counties

Overall, the County Business Environment for MSEs (CBEM) score for the 42 counties covered in the survey was 20.98 as reported in Table 2. This is much lower compared to the World Bank Doing Business 2019 Ease of Doing Business score for Kenya at 70.31 (World Bank, 2018a). However, caution must be taken when comparing the two scores due to differences in the indicators used and the target group. While the World Bank Doing Business mainly focuses on regulations from the perspective of small and medium-size firms, the County Business Environment for MSEs focuses on MSEs capturing indicators beyond those on regulations. Further, the reported country level ease of Doing Business covers only Nairobi while the CBEM covered 42 counties. Nairobi county, though, is ranked the first in the CBEM with a score of 45.24, followed by Nyandarua county at 40.48, with Nakuru county at 35.14 taking the third position. Isiolo is ranked forty-second with a score of 7.26.

In the third sub-national Doing Business in Kenya 2016<sup>1</sup>, the World Bank considered 11 counties, namely: Nairobi, Busia, Isiolo, Kakamega, Kiambu, Kisumu, Machakos, Mombasa, Narok, Nyeri and Uasin Gishu. Busia County was ranked first with a score of 65.75 while Nairobi ranked ninth scoring 62.66. Caution should be taken when comparing with the CBEM scores across the 11 counties due to differences in the indicators used and the target group.

**Table 2: Overall county business environment for MSEs score and rank**

County	Score	Rank	World Bank Ease of Doing Business 2016	
			Score	Rank
Nairobi	45.24	1	62.66	9
Nyandarua	40.48	2		
Nakuru	35.14	3		
Kisumu	35.02	4	65.33	2
Laikipia	34.64	5		

<sup>1</sup> Only 4 indicators were included, i.e. Starting a business; Dealing with construction permits; Registering property; and Enforcing contracts

Kakamega	32.80	6	62.33	11
Mombasa	31.80	7	64.93	4
Kisii	31.42	8		
Taita Taveta	28.25	9		
Kiambu	28.12	10	63.28	8
Meru	27.79	11		
Machakos	26.00	12	64.19	6
Nyeri	25.87	13	65.04	3
Makueni	25.61	14		
Garissa	24.23	15		
Nandi	21.19	16		
Kwale	20.99	17		
Murang'a	20.87	18		
Mandera	20.51	19		
Siaya	19.71	20		
Kilifi	19.31	21		
Bungoma	18.52	22		
Tharaka Nithi	18.52	23		
Homa Bay	18.41	24		
Migori	17.30	25		
Embu	17.28	26		
Busia	17.15	27	65.75	1
Vihiga	16.27	28		
Uasin Gishu	15.78	29	64.85	5
Baringo	15.77	30		
Kajiado	15.66	31		
Trans Nzoia	13.49	32		
Kirinyaga	13.17	33		
Kericho	12.91	34		
Bomet	12.51	35		
Wajir	12.23	36		
Elgeyo Marakwet	9.58	37		
Marsabit	9.32	38		
Kitui	9.05	39		
West_Pokot	8.66	40		
Narok	7.40	41	62.04	7
Isiolo	7.26	42	62.66	10
<b>Overall average score</b>	<b>20.98</b>			

Source: Author's calculations

For the individual indicators, self-regulation scores highest at 54.58 while patenting scored lowest at 0.09 (Table 3). The high score in self-regulation, is attributable to the initiative by MSEs to establish associations as platforms for lobbying and advocacy. Licensing and access to worksites were ranked second and third with a score of 44.12 and 41.96, respectively. Electricity connection was fourth scoring 37.76. Innovations and patenting scored the least at 0.50 and 0.09, respectively, mainly because MSEs seem not to be innovating either in products or processes. On innovation capability in the Global Competitiveness Index 2018, Kenya is ranked at position 69 out 140 countries with low score of 36.5. with minimal innovations due to low research and development expenditures and also low patenting (protecting the innovations)(World Economic Forum, 2018). Therefore, poor performance in innovation and patenting is not just a problem with MSEs in Kenya.

**Table 3: Overall scores and rank for CBEM indicators**

Indicator	Average Score	Rank
Self-regulation	54.58	1
Licensing	44.12	2
Access to worksites	41.96	3
Electricity connection	37.76	4
Crime and public security	31.98	5
Roads	31.03	6
Access to markets	30.87	7
Water connection	25.94	8
Public toilets	20.76	9
Knowledge and skills mapping	19.87	10
Waste management	17.07	11
Training (capacity building) for MSEs	15.62	12
Corruption and governance issues	13.10	13
Common Manufacturing facilities	10.53	14
Unfair competition	7.86	15
AGPO	7.80	16
Industrialization culture	5.34	17
Access to digital finance	2.86	18
Innovations	0.50	19
Patenting	0.09	20
Overall average score	20.98	

Source: Author's calculations

### 3.2 Worksite and Related Infrastructure

The key aspects considered in relation to worksite include: access to worksite, access to common manufacturing facilities, and adequacy on infrastructure services such as electricity connection, water connection, public toilets, and waste management. Of these, access to worksite which includes procedures and related costs scored high with an average score of 41.96, while access to common manufacturing facilities scored the lowest in this category of indicators as reported in Table 4 (Appendices 3,4 & 5 report the sub-indicators' scores). This can be attributed to the fact that the national government through institutions such as MSEA and Kenya Industrial Estates have been involved in constructing worksites for MSEs over time and therefore enhancing access. Other initiatives have been from the private sector, individual MSEs associations and development partners. County governments are also increasingly playing an important role towards worksite construction. Regarding common manufacturing facilities, challenges relate to costs involved *viz a vis* the economic needs of different worksites. Common manufacturing facilities are capital-intensive since they comprise heavy machinery, thus it would be uneconomical to have them within a worksite if not fully utilized.

**Table 4: Scores for worksite and related infrastructure indicators**

County	Access to worksites	Access to common manufacturing facilities	Electricity connection	Water connection	Public toilets	Waste management	Average across
Baringo	23.54	-	45.04	26.17	10.69	14.85	24.19
Bomet	19.74	7.93	19.04	29.93	14.41	7.92	17.83
Bungoma	34.61	-	23.46	13.70	16.31	18.23	17.93
Busia	57.75	-	10.96	-	15.50	10.51	12.32
Elgeyo Marakwet	16.34	-	10.67	11.78	12.82	22.06	14.33
Embu	24.28	1.16	36.17	31.51	15.88	10.01	23.39
Garissa	19.34	7.41	31.96	44.19	22.57	32.57	32.82
Homa Bay	42.21	12.81	15.76	17.08	19.39	20.28	18.13
Isiolo	16.47	15.20	21.11	-	6.54	-	13.83
Kajiado	32.09	13.87	31.24	27.45	19.02	15.97	23.42
Kakamega	79.02	29.14	66.21	65.30	37.13	13.25	45.48
Kericho	26.76	-	14.08	32.49	11.81	21.41	19.95
Kiambu	54.85	5.29	56.08	33.18	30.13	34.02	38.35
Kilifi	24.75	5.10	50.93	21.14	25.19	16.64	28.48

County	Access to worksites	Access to common manufacturing facilities	Electricity connection	Water connection	Public toilets	Waste management	Average across
Kirinyaga	31.10	1.32	21.82	21.25	16.19	13.05	18.08
Kisii	65.36	23.32	61.45	24.72	37.62	17.98	35.44
Kisumu	66.76	10.14	80.04	19.79	48.44	4.42	38.17
Kitui	11.25	-	12.74	5.60	16.33	10.91	11.40
Kwale	40.27	19.76	21.27	29.49	22.51	8.83	20.53
Laikipia	62.18	16.83	70.37	54.77	22.17	30.99	44.58
Machakos	77.38	16.06	48.69	16.39	15.92	12.90	23.48
Makueni	46.82	15.47	58.22	52.80	22.26	8.88	35.54
Mandera	36.09	22.66	21.72	17.28	13.60	26.12	19.68
Marsabit	27.35	-	17.35	18.89	7.77	10.44	13.61
Meru	35.99	15.27	53.45	38.27	27.88	27.98	36.90
Migori	35.94	15.24	37.60	17.53	17.97	19.10	23.05
Mombasa	78.15	9.00	47.10	29.98	10.03	9.51	24.16
Murang'a	42.35	9.22	33.24	18.51	23.18	23.62	24.64
Nairobi	81.69	45.37	79.89	56.04	44.97	29.81	52.68
Nakuru	81.27	7.00	76.68	48.74	29.73	38.31	48.37
Nandi	32.88	15.84	38.95	-	29.88	20.85	29.89
Narok	13.65	-	12.71	11.24	7.82	11.49	10.82
Nyandarua	79.63	24.55	70.35	52.65	37.94	32.10	48.26
Nyeri	48.37	5.80	64.40	35.65	21.55	10.36	32.99
Siaya	51.59	-	56.99	13.08	27.24	20.06	29.34
Taita Taveta	64.43	24.72	57.01	46.35	35.33	14.10	38.20
Tharaka Nithi	27.64	11.13	34.17	32.50	16.37	19.99	25.76
Trans Nzoia	34.26	11.92	1.66	22.57	15.38	15.22	13.71
Uasin Gishu	28.49	7.62	18.12	22.69	16.47	11.56	17.21
Vihiga	50.49	4.54	4.29	14.56	16.22	9.98	11.26
Wajir	18.70	6.23	46.35	14.03	3.66	7.72	17.94
West Pokot	20.59	5.30	6.33	-	10.19	12.93	9.82
Average	41.96	10.53	37.76	25.94	20.76	17.07	25.67

Source: Author's calculations

NB: (-) Means non-response

**a) *Access to worksite***

Nairobi County was the best ranked with a score of 81.69 on access to worksite while Kitui scored the least at 11.25. Nakuru and Nyandarua scored 81.27 and 79.63 ranking second and third, respectively. The performance of Nairobi County is attributed to the ease of access of worksites by MSEs in terms of procedures, costs, distance and time taken.

Overall, the procedures of benefitting from a worksite are not uniform across associations. Such procedures include: being a dully registered member of the association and an entrepreneur in one of the key four MSE sectors (trade, manufacturing, agri-business and services), demonstrate ability to pay rents, rates and related expenses for the workspace allocated, pay for development projects, and obtain a business permit before allocation. The cost implications of benefitting from a worksite are also varied with some costing nothing (a new member is not supposed to pay anything to access a worksite if space is available) while others are as high as Ksh 584,000 per MSE as a one-off payment. Other MSE associations require members to pay for development projects before being able to benefit from worksites.

There are, however, challenges regarding legality of worksites that MSEs operate from. About 63 per cent of MSEs from sampled associations operate in legal worksites while 37 per cent operate in illegal worksites. A considerable number of MSEs therefore operate in fear and uncertainty of anticipated demolitions by either the county or national governments. Other challenges include limited financing for example for MSEA, which is mandated to develop worksites for associations, and which affects development of worksites for use by MSEs; limited land for worksite development; location of worksites away from market centres; inadequate power supply (some are connected to one phase, yet they require three phase connections) and construction of suitable stalls and workshops. Some worksites were constructed long time ago where initial physical planning did not consider expansion of membership and cater for other important utilities such as water, sewer and drainage.

**b) *Access to common manufacturing facilities***

Common manufacturing facilities are facilities that MSMEs use to process their products. They are provided in the worksites by various stakeholders including the government and development partners and are vital in providing economies of scale for MSMEs to process their products. Individual MSEs need to be members of an association to access these facilities. Non-members must pay to access the facilities.



The average score across all the counties was 10.53. Nairobi County scored highly at 45.37 while Embu had the least score of 1.6. MSEs in the manufacturing sector in Nairobi County have more ease (procedures, time taken, and costs) of accessing common manufacturing facilities compared to other counties.

Some of the challenges faced by MSEs in using common manufacturing facilities include: inadequate workshops, lack of safety gears such as helmets, boots and overalls for the artisans. Where worksites lack common manufacturing facilities, MSE operators in need of such facilities are forced to travel up to a maximum of 160 kilometres in search of facilities, which increases operational costs. In some counties, worksites have common manufacturing facilities installed but MSEs are still waiting upon the national government for financial support to invest and expand their businesses and use the machines. This would imply obtaining more raw materials that necessitate them to use heavy machinery in the production process. In some cases, common manufacturing facilities are installed in worksites where majority of MSEs around may be engaged in unrelated economic activities, leaving the facilities idle. This is because there is lack of coordination in identifying and locating common manufacturing facilities since many players are involved both at national, county and at private sector level.

### **c) *Electricity connection***

Kisumu County scored 80.04 on electricity connection to worksites compared to an average of 37.76 across all the counties. Nairobi scored 79.89 which compares well with the World Bank Doing Business result where Nairobi scores 76.8 on access to electricity.<sup>2</sup> This implies that electricity connection for small and medium-size firms and MSEs are almost similar in Nairobi.

#### **Box 3.1: Access to electricity in Nairobi**

##### **County Business Environment for MSEs: Electricity connection score = 79.89**

Sub-indicators: Procedures undertaken to access electricity within a worksite; official cost of connection; time taken to connect; average electricity bill amount payable monthly; number of power outages experienced in a month and number of times for monitoring electricity supply

##### **World Bank Ease of Doing Business: Getting electricity score = 76.8**

Sub-indicators: Procedures, time and cost to get connected to the electrical grid, the reliability of the electricity supply and the cost of electricity consumption

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<sup>2</sup> The World Bank surveys small and medium enterprises in Nairobi only on the same indicator while our framework considers micro and small enterprises.

The average cost of connecting electricity to worksites by associations ranges from Ksh 0 (in cases where, the electricity was connected by funder of the worksite i.e. the national government or development partners) to Ksh 1.7 million (where the associations bear the burden of connecting the worksite which is cascaded to individual MSEs proportionately). Time taken for electricity connection ranges from 7 days up to 5 years despite fully complying with necessary requirements. Electricity tariffs are deemed unfair with some associations in different worksites spending as little as Ksh 500 on bills per month while others as high as Ksh 400,000. This can be attributed to the fact that worksites are heterogenous with different uses of electricity; some use it for powering heavy machinery compared to others.

MSEs have challenges with supply and consistency of electricity, with some areas experiencing power outages on near daily basis (30 outages per month). This disrupts business operations and causes damages to equipment, inventory, and ultimately revenue. Other challenges include high cost of connecting electricity due to location of sites from high voltage lines and the need to install transformers, pending or non-paid bills when worksites were handed to the associations by contractors (causing disconnections), and vandalization of electricity wires (naked wires pose hazards).

#### **d) Water connection**

Kakamega County was ranked best in water connection with a score of 65.30 compared to the average score across the counties of 25.94. Kitui County was least ranked with a score of 5.6. Intuitively, MSEs worksites in Kakamega County have more ease of access (connections) to water, which is regular in supply and affordable compared to Kitui.

It is important to note that most of the worksites across the counties had water connected by contractors who had been assigned the projects either by national government agencies such as Kenya Industrial Estates, MSEA or development partners such as the World Bank before handing over. There are instances where some incomplete projects were handed over by the contractors and some counties such as Bomet County faced such challenge. Water connection charges vary, with some associations spending nothing (where the worksites were handed over to the association fully connected to water) while others spend at most Ksh 2 million (where the contractors did not equip the worksites with water although they were contractually obliged to). Water tariffs are deemed unfair and some associations have sunk boreholes thus spending nothing per month while others spend Ksh 400,000. Water shortage is also experienced in MSE worksites with some experiencing the problem for several months each year.

**e) Public toilets**

The average score across all counties was 20.76 which means extra effort is required to improve sanitation facilities in the worksites. Kisumu County scored better with a score of 48.44 while Wajir scored the least at 3.66. Some of the challenges experienced by MSEs in relation to provision of public toilets include poor drainage and sewerage system. Some worksites do not have public toilet facilities, hence compromising on matters of hygiene and increased cost of doing business while seeking toilet services.

**f) Waste management**

Waste management at the worksites scored the least among the worksite infrastructure facilities. Nakuru County had the highest score of 38.31 compared to an average score across the counties of 17.07. Kisumu County scored 4.42. Overall, most MSEs’ worksites do not have designated areas for waste disposal, which poses a health hazard. Most of the MSE associations have their own waste collection initiatives through companies or individuals, which is costly. Some MSE associations have dug pit latrines while others opt to burn their waste within their worksites.

**3.3 Market Environment for MSEs**

Several factors were considered in defining the market environment for MSEs including access to AGPO; road infrastructure; access to market; and unfair competition. Table 5 presents the scores for these indicators with access to AGPO scoring the least while road infrastructure is highest. Generally, the market environment scores lower (19.38) than the worksite infrastructure at 25.67. Sub-indicators’ scores are shown in Appendix 6.

**Table 5: Scores for market environment indicators**

County	AGPO	Roads	Access to markets	Unfair competition	Average
Baringo	-	19.49	23.58	7.94	14.12
Bomet	5.46	17.86	15.73	5.96	13.18
Bungoma	5.67	24.83	43.56	9.71	20.94
Busia	-	31.50	39.61	2.65	24.59
Elgeyo Marakwet	-	14.88	13.25	4.94	11.02
Embu	6.78	16.14	25.38	4.64	13.24
Garissa	15.72	37.33	42.05	3.13	24.56

*Characterizing the county business environment for MSEs*

Homa Bay	5.26	31.66	31.76	3.96	18.16
Isiolo	17.17	7.89	2.50	2.65	7.55
Kajiado	6.86	19.36	19.71	4.85	12.70
Kakamega	7.37	65.30	31.66	21.15	31.37
Kericho	-	17.20	15.84	6.60	13.21
Kiambu	3.95	56.13	53.30	6.61	30.00
Kilifi	-	30.19	24.89	8.51	21.20
Kirinyaga	-	28.53	18.92	3.97	17.14
Kisii	13.19	49.01	43.46	11.91	29.39
Kisumu	11.63	51.60	41.50	20.37	31.28
Kitui	2.46	18.69	19.25	-	13.47
Kwale	6.59	42.76	31.40	8.80	22.39
Laikipia	3.13	60.13	66.81	7.49	34.39
Machakos	13.98	27.21	19.89	9.52	17.65
Makueni	5.46	30.67	34.42	9.10	19.91
Mandera	-	27.54	41.25	8.74	25.84
Marsabit	-	10.59	15.84	2.65	9.69
Meru	14.58	36.79	46.65	11.41	27.36
Migori	10.51	24.28	26.99	4.64	16.61
Mombasa	34.52	25.65	42.47	14.06	29.18
Murang'a	5.74	40.26	40.01	3.97	22.50
Nairobi	31.39	70.86	67.65	20.36	47.57
Nakuru	6.15	49.42	39.19	12.36	26.78
Nandi	19.82	31.54	31.67	5.30	22.08
Narok	-	11.19	9.05	2.65	7.63
Nyandarua	15.80	56.63	66.65	17.27	39.09
Nyeri	4.74	40.99	26.88	16.50	22.28
Siaya	3.98	26.23	27.75	1.32	14.82
Taita Taveta	13.97	32.35	33.08	7.63	21.76
Tharaka Nithi	-	25.29	15.48	10.60	17.12
Trans Nzoia	5.24	17.84	23.75	7.92	13.69
Uasin Gishu	10.23	20.94	19.74	7.94	14.71
Vihiga	14.72	23.77	31.67	3.03	18.30
Wajir	5.47	18.86	16.48	1.85	10.67
West Pokot	-	13.91	15.76	5.29	11.65
<b>Average</b>	<b>7.80</b>	<b>31.03</b>	<b>30.87</b>	<b>7.86</b>	<b>19.38</b>

*Source: Author's calculations*

*NB: (-) Means non-response*

**a) Access to government procurement opportunities**

Mombasa County scored the highest with access to AGPO at 34.52 compared to an average score of 7.86. Kitui County scored the least on this indicator with a score of 2.46. The relatively low score implies that more MSEs need to be sensitized and prequalified on the AGPO initiative to give them an opportunity to access government procurement opportunities.

Generally, the uptake of AGPO in prequalification is low among MSEs due to information asymmetry. Most MSEs are not aware of the initiative and for those who may be aware, they do not pursue prequalification since they perceive it to be difficult to get tenders from government. The other constraint is informality of MSEs. The AGPO targets women, youth and Persons with Disability (PWDs). They are required to have the following to qualify: national identity card/ passport, business registration certificate, CR12 for Limited Company from registrar of business names, partnerships deed for partnerships business and tax compliance<sup>3</sup>.

**b) Road infrastructure**

There is huge disparity in distribution of road infrastructure across counties. Nairobi County scored highly at 70.86 against an average score of 31.03, while Isiolo scored the least at 7.89. Poor road infrastructure is a hindrance to the movement of goods, people and services in accessing new markets. A good road network is important in easing movement of goods, people and services to access markets. The results of the survey indicate that some MSEs are near tarmac roads while others are located 300 kilometres from the tarmac road.

**c) Access to markets**

The average score for access to markets by MSEs was 30.87. Nairobi County scored highest at 67.65 while Isiolo scored the lowest at 2.5. Access to markets facilitates MSEs to participate in trade activities. The study established that some MSEs are situated within the market centres while the others are more than 100 kilometres away from market centres. Higher levies are also a bottleneck for MSEs with some spending close to Ksh 60,000 per annum on levies and fees in accessing local (within a county) markets for their commodities.

MSEs also face challenges in acquiring certification for their products due to safety standards set in accessing local (within a county), national (domestic) and international markets. The standards relate to quality of the goods; locally, they are set by bodies such as Kenya Bureau of Standards, Kenya Plant Health Inspectorate

<sup>3</sup> <https://agpo.go.ke/pages/agpo-registration-requirements>

Service (KEPHIS) and the Ministry of Health, among others. Internationally, the sanitary and phytosanitary standards are set by the World Trade Organization (WTO) and compliance is monitored by relevant bodies in the importing county.<sup>4</sup>

#### **d) Fair competition**

MSEs across the counties face a significant level of unfair competition. Kakamega County ranked highest on this indicator with a score of 21.15 while Siaya ranked lowest with a score of 1.32. The low score implies that there exists unhealthy anti-competitive and unfair trade practices activities among MSEs across the counties. Unfair business practices are manifested through contract enforcement, counterfeiting, dumping (substandard goods) and misrepresentation (through weight, price, ingredient).

### **3.4 Financial and Technical Capacity of MSEs**

The financial and technical capacity for MSEs is analyzed considering the following indicators: access to digital finance, training, ability to coping with technology, knowledge and skill, and MSEs survival rate. Table 6 presents the capacity related indicator scores, with knowledge and skills mapping rating high and patenting very low. Sub-indicators' scores are shown in Appendix 7.

**Table 6: Scores for financial and technical capacity indicators**

County	Access to digital finance	Training (capacity building) for MSEs	Innovations	Patenting	Knowledge and skills mapping	MSEs survival rate	Average
Baringo	0.89	8.47	0.01	0.01	17.97	3.14	5.08
Bomet	2.23	10.28	0.25	-	17.86	2.93	6.71
Bungoma	1.39	3.54	-	-	34.01	5.58	11.13
Busia	2.62	1.62	-	-	33.68	3.11	10.26
Elgeyo Marakwet	0.83	-	0.04	-	8.26	3.19	3.08
Embu	0.99	19.92	0.02	-	20.96	4.11	9.20
Garissa	1.88	13.15	0.05	-	13.77	6.89	7.15
Homa Bay	3.56	19.46	1.45	-	15.66	1.51	8.33
Isiolo	0.35	5.26	-	-	5.74	2.35	3.43
Kajiado	2.25	7.9	0.07	-	14.78	2.54	5.51
Kakamega	4.51	27.83	0.9	0.15	19.41	8.6	10.23

<sup>4</sup> In the case of Kenya; KEBS, KEPHIS and MOH

Kericho	0.92	7.24	0.09	-	14.81	6.07	5.83
Kiambu	1.84	14.66	0.03	0.03	25.32	1.32	7.20
Kilifi	0.88	16.81	0.86		27.77	0.94	9.45
Kirinyaga	1.01	11.01	0.23		7.14	1.14	4.11
Kisii	5.61	23.28	1.15	1.34	21.66	5.99	9.84
Kisumu	5.96	56.28	0.58	0.21	28.31	9.01	16.73
Kitui	2.4	-	0.4	-	11.47	-	4.76
Kwale	1.21	7.02	-	-	18.43	0.87	6.88
Laikipia	8.45	23.65	0.22	-	24.49	10.53	13.47
Machakos	6.43	37.53	1.21	0.02	18.36	10.02	12.26
Makueni	3.5	21.15	0.08	-	20.5	2.68	9.58
Mandera	0.72	11.98	1.57	-	9.19	2.44	5.18
Marsabit	0.04	2.89	0.39	-	9.62	2.22	3.03
Meru	1.21	8.23	0.81	0.84	41.33	7.3	9.95
Migori	2.32	16.91	0.61	0.01	15.13	3.04	6.34
Mombasa	5.52	43.4	1.04	0	27.88	10.98	14.80
Murang'a	1.19	16.94	-	-	9.2	1.03	7.09
Nairobi	14.37	48.04	0.01	-	32.11	24.97	23.90
Nakuru	1.97	23.05	0.03	-	27.83	12.38	13.05
Nandi	2.26	15.41	0.4	-	30.95	8.09	11.42
Narok	0.65	6.87	-	-	3.63	2.27	3.36
Nyandarua	12.82	31.94	2.1	0.34	31.41	19.18	16.30
Nyeri	5.88	19.51	1.5	-	24.88	8.94	12.14
Siaya	3.49	6.59	2.49	-	19.76	2.62	6.99
Taita Taveta	0.94	8.68	0.05	-	44.92	3.56	11.63
Tharaka Nithi	0.4	10.24	0.58	0.13	15.21	6	5.43
Trans Nzoia	1.23	10.19	0.14	0.01	9.83	4.2	4.27
Uasin Gishu	2.49	14.14	0.08	-	24.18	5.82	9.34
Vihiga	2.21	9.1	1.39	0.49	18.61	4.46	6.04
Wajir	0.44	6.08	-	-	12.28	0	4.70
West Pokot	0.38	9.69	0.04	-	6.37	2.42	3.78
<b>Average</b>	<b>2.86</b>	<b>15.62</b>	<b>0.5</b>	<b>0.09</b>	<b>19.87</b>	<b>5.34</b>	<b>7.38</b>

Source: Author's calculations

NB: (-) Means non-response

**a) Access to digital finance**

The overall score for access to digital finance is very low at 2.86, which means that MSEs may be facing challenges in expanding their investment and operating their business. Nairobi County scored highest at 14.37 while Marsabit scored the least at 0.04. Overall, there is a moderate uptake of financial innovations such as M-Pesa and M-Shwari by MSEs. On the contrary, MSEs have low understanding of CRBs and use of innovations such as M-Akiba, which is a savings product. MSEs need to fully appreciate the role of digital finance, for instance accessing their credit reports to know their credit worthiness which can allow them to borrow from formal financial institutions. The 2016 FinAccess report indicates that about 18 per cent of the population were using banking services such as M-Shwari and KCB-M-Pesa. A good percentage of Kenyans were also said to use mobile financial services such as Airtel Money, M-Pesa, MobiKash, Orange Money and Tangaza Pesa on a daily and weekly basis.

**b) Training (capacity building) for MSEs**

Kisumu County scored the highest on training indicator (56.28) far above the average score of 15.62 while Busia scored least (1.62). This can be attributed to the initiatives by CEDO in Kisumu in linking the associations with training institutions. It is important, however, to note that CEDOs support MSEs across the country. Some of the challenges experienced include lack of a training and apprenticeship programme for artisans, high costs associated with training, lack of training needs assessments for MSEs, and lack of monitoring and evaluation of effectiveness of trainings given to MSEs. Training and capacity building support is currently fragmented and offered by several different players who include government, private and Non-governmental Organizations (NGOs). Public institutions that offer training support to MSEs in Kenya include: Kenya Industrial Training Institute (KITI); Kenya Industrial Estates (KIE); Kenya Industrial Research Development Institute (KIRDI); public universities such as Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenyatta University and University of Nairobi; Kenya Bureau of Standards (KEBS); Kenya Institute of Business Training (KIBT); polytechnics; county governments through business centers and National Industrial Training Authority. Private institutions include universities such as Strathmore; incubators such as i-hub and Nailab; NGOs include GS1 and World Vision, while development partners include World Bank, MESPT, USAID, and DFID who provide capacity building as a component of their technical support or capacity building as a stand-alone. Small enterprises also access training opportunities through their business associations. However, some trainers may not be certified by relevant certification bodies. For those



certified, the certifying bodies may not be having mandates representative of MSE needs. These include Kenya Bureau of Standards (KEBS), Institute of Certified Public Accountants (ICPAK), National Industrial Training Authority (NITA) and National Environmental Management Authority (NEMA).

**c) Coping with technology (innovation and patenting)**

MSEs rate very low in their ability to cope with technological advancement. The average score for innovation and patenting were at 0.5 and 0.09 for innovation and patenting. Siaya County was best ranked on innovation (2.49), among the 36 counties that responded to the indicator. The low level of response to this question by associations is reflective of minimal innovativeness by MSEs. Some of the challenges facing MSEs include high costs of innovation, lack of incentives to innovate and limited finance to fund innovative ideas. MSEs do not seem to be aware of the relevant bodies that register intellectual property rights such as patenting.

**Box 3.2: Innovation capability score for Kenya and selected aspirator countries**

Country	Score (Rank)
South Korea	78.2(8)
Singapore	75(14)
China	64.4(24)
Malaysia	55.5(30)
India	53.8(31)
South Africa	44.3(46)
Kenya	36.5(69)

Source: World Economic Forum (2018)

Note: Ranks out of 140 economies and scores measured on a 0-100 (best) scale

**d) Knowledge and skills mapping**

MSEs face various skills gaps and the average score of 19.87 is an indication that a lot is required in enhancing their capabilities. Taita Taveta County scored highest at 44.92 mainly because of the established County Business Centre which provides training and capacity building support for MSEs to impart knowledge and skills. The challenges facing MSEs on this indicator include obsolete skills, weak capacity building on critical areas, lack of training needs assessment on capacity

building, weak technology transfer characterized by few incubation centres, and lack of standardization in terms of skills before venturing into entrepreneurship activities. The key training needs reported by MSE associations, for instance, include financial, technical, entrepreneurship and marketing.

**e) MSEs survival rate**

A good number of MSEs close shop before their third anniversary in business, creating a challenge in nurturing the entrepreneurial and industrial culture necessary to realize the industrialization objective in the country. Nairobi County performed better on this indicator compared to other counties with a score of 24.97 while Kwale was the least (0.87). Bottlenecks to MSE survival include low entrepreneurial skills which lead to poor management, financial constraints, high competition, high costs of doing business such as rent, water, electricity and licensing, political environment, natural causes such as ill health and death among others. Generally, all the sectors are affected with such challenges.

**3.5 Governance and Regulatory Framework**

The key indicators used to explain the governance and regulatory framework defining the environment within which MSEs operate include licensing, corruption, self-regulation and crime and public security. Table 7 reports the governance and regulatory framework scores across all the counties, with self-regulation having the highest score. On average, the five counties that scored highly with these indicators include Nyandarua, Nairobi, Nakuru, Mombasa and Kisumu. Sub-indicators’ scores are reported in Appendix 8.

**Table 7: Scores for governance and regulatory framework indicators**

County	Licensing	Corruption and governance issues	Self-regulation	Crime and public security	Average
Baringo	39.64	11.9	39.51	17.21	27.07
Bomet	28.5	11.8	17.33	20.4	19.51
Bungoma	36.85	2.91	62.16	33.95	33.97
Busia	42.27	-	65.58	25.63	44.49
Elgeyo Marakwet	22.77	3.31	28.74	17.74	18.14
Embu	38.55	16.08	52.31	20.74	31.92
Garissa	63.08	9.33	78.69	41.49	48.15
Homa Bay	50.6	3.91	45.22	26.56	31.57
Isiolo	12.55	-	21.7	7.71	13.99

Kajiado	29.39	7.9	41.58	16.3	23.79
Kakamega	47.37	18.3	54.45	58.84	44.74
Kericho	24.44	7.94	33.69	16.77	20.71
Kiambu	60.97	10.51	63.74	50.37	46.40
Kilifi	18.7	11.92	70.02	30.96	32.90
Kirinyaga	24.43	5.28	31.64	25.46	21.70
Kisii	77.2	18.65	76.68	48.9	55.36
Kisumu	72.23	31.79	64.44	76.81	61.32
Kitui	25.63	-	29.92	13.88	23.14
Kwale	42.01	12.62	68.65	37.24	40.13
Lakipia	80.39	12.5	78.43	59.3	57.66
Machakos	48.13	38	72.87	29.44	47.11
Makueni	45.82	14.52	86.12	33.68	45.04
Mandera	48.15	17.45	70.84	32.79	42.31
Marsabit	17.22	-	29.71	13.4	20.11
Meru	68.64	5.69	73.78	39.79	46.98
Migori	34.66	9.22	30.85	23.36	24.52
Mombasa	77.93	39.26	85.7	43.78	61.67
Murang'a	55.07	2.65	52.29	38.99	37.25
Nairobi	84.64	35.16	80.96	56.62	64.35
Nakuru	83.14	29.92	84.21	51.48	62.19
Nandi	46.28	-	62.09	31.48	46.62
Narok	10.03	11.88	23.38	9.51	13.70
Nyandarua	82.88	41.75	82.92	50.59	64.54
Nyeri	60.21	32.72	40.98	47.49	45.35
Siaya	37.34	-	61.46	32.18	43.66
Taita Taveta	40.86	26.98	74.73	35.3	44.47
Tharaka Nithi	32.79	29.42	56.82	25.63	36.17
Trans Nzoia	27.29	-	41.56	19.63	29.49
Uasin Gishu	30.02	7.18	43.51	24.36	26.27
Vihiga	32.27	9	49.51	25.12	28.98
Wajir	32.68	-	34.07	19.62	28.79
West Pokot	19.28	2.65	29.53	12.46	15.98
<b>Average score</b>	<b>44.12</b>	<b>13.1</b>	<b>54.58</b>	<b>31.98</b>	<b>35.95</b>

Source: Author's calculations

NB: (-) Means non-response

**a) Licensing and issuance of permits**

The government initiatives such as establishment of Huduma centers have tremendously transformed licensing and permit acquisition processes. All that MSE owners need to do is to visit Huduma centres and provide documentation such as copy of national identity card, copy of registration certificate of the company or name, plot number and physical address among others before making payment for the license/permit. Nairobi County ranked high in licensing and issuance of permits with score of 84.64. Narok County ranked the lowest (10.03). This could be attributed to differences in time taken to either acquire or renew the license and permits.

**b) Corruption and governance issues**

Corruption and governance in/around worksites tend to increase the cost of doing business for MSEs. Generally, MSEs confront corruption issues while transacting business with county revenue (licensing) officers, and in allocation of worksites by associations’ officials to MSEs who do not belong to the associations. Nyandarua County performed better with a highest score of 41.75 while West Pokot scored the least (2.65). MSEs in Nyandarua County had reported few cases of corruption or any other form of governance victimization compared to other counties which record worse performances.

**Box 3.3: Incidence of corruption score in Kenya and selected aspirator countries**

Country	Score (Rank)
Singapore	84(6)
South Korea	54(45)
Malaysia	47(55)
China	41(66)
South Africa	43(61)
India	40(69)
Kenya	28 (120)

Source: World Economic Forum (2018)

Note: Ranks out of 140 economies and scores measured on a 0-100 (best) scale

**c) *Self-regulation***

MSE associations are considered important vehicles for tapping into economies of scale. However, bureaucracies in the process of admitting new members to the associations act as hindrances to these benefits. Overall, associations have laid down processes of registration for new members but are faced with variations regarding the costs to be paid. Some associations require new members to pay into expensive development projects such as purchase of machinery as a condition for registration. There also exists variations in processes and associated costs of joining MSEs associations. Some associations require new members to go through more steps than others. This may end up locking out potential members who may not be able to conform to the requirements. Makueni County scored highest (86.12) mainly because of consistency of procedures in admission of new members to the associations. Bomet County was ranked lowest at 17.33 due to challenges of high costs and numerous procedures in admitting new members to the associations.

**d) *Crime and public security***

Incidences of crime in and around worksites are prevalent across counties. As a result, most MSE associations organize for private security on behalf of their members who are required to pay for the services. Kisumu County scored highly at 76.81 mainly because of recording fewer cases of insecurity to MSEs and responsiveness of police officers to address insecurity challenges. The key issues brought out here include responsiveness of the police officers in tackling insecurity challenges and adoption of coping mechanisms by MSEs through hiring private security.

## 4. CONCLUSIONS AND POLICY IMPLICATIONS

The Business Environment for MSEs framework developed takes a comprehensive approach in identifying various issues that require public policy interventions in improving the enabling environment for MSEs. The analysis focuses on four key areas: worksite and adequacy of related infrastructure; market environment that MSEs find themselves; financial and technical capacity for MSEs; and governance and regulatory framework. There were significant disparities in performance among the various indicators and across the counties. For example, self-regulation and licensing scored highly while capacity of the firms including ability to adopt to technology scored the least. Counties that had several active associations scored highly compared to those with a small number of associations, which reflects the ability to achieve on the needs of membership with a united voice.

### **a) *Worksite and adequacy of infrastructure***

There is a significant proportion of MSEs operating in illegal sites which enhances their vulnerability to demolition by the national and county government. Limited land to construct worksites, appropriate locality and adequacy of existing worksites remain a challenge. Inadequate workshops and lack of safety gears limit use of common manufacturing facilities. Power outages, connection costs and pending bills remain a challenge with electricity supply. The cost of water connection where contractors handed over incomplete projects; poor drainage and sewerage system and lack of a waste disposal place are key challenges for the MSEs operations. In addressing the challenges, the following actions are required:

- The national government through institutions such as MSEA and Kenya Industrial Estates, and county governments need to work closely to facilitate development of more worksites designated for MSEs to save them from sporadic disruptions caused by demolitions. This will create an enabling environment for MSEs to operate. Construction of worksites should ensure provision of adequate amenities. Additionally, more workshops and showrooms should be constructed to accommodate the growing number of artisans. County governments need to set aside land for MSEs to construct more worksites. This land should be titled and fenced to avoid challenges emanating from land adjudication and corruption. The National and County governments through relevant ministries and departments also need to put in place mechanisms of exploring Public Private Partnerships (PPPs) to invest in worksite constructions alongside other related infrastructures. In cases of incomplete projects, there is need to follow up with the contractors to ensure all requirements are met.

- Worksites should be connected to adequate and quality power supply (three phase connections) suitable for heavy machinery and equipment used in manufacturing. Kenya Power has a central role in ensuring efficiency in service provision through quick connections, transparency in tariffs, reduced power outages, quick complaint resolutions and monitoring and maintenance of equipment (replacement of vandalized transformers, poles and wires). Kenya Power should continuously innovate to curb vandalism of equipment. Further, there is need for government to continuously come up with measures towards subsidizing electricity costs. Alternative and cheaper sources of power such as wind and solar should continuously be explored to increase supply to the grid. MSEs should also be encouraged to innovate and switch to cheaper sources of power.
- The water utility companies have a role to ensure efficiency in service provision through quick connections, transparency in tariffs, reduced water shortages, and quick complaint resolutions. The county governments could facilitate connection of water to MSE worksites to improve on the business environment. Collaborations with development partners and avenues of Public Private Partnerships (PPPs) could be explored to unlock financing and facilitate water connectivity. Opportunities exist in water harvesting and drilling of boreholes to increase supply of water to MSEs.
- The county governments working in collaboration with representation from the Ministry of Industry, Trade and Cooperatives (national), MSEA and development partners need to establish common manufacturing facilities for MSEs through a proper mapping of important needs of different worksites. Further, there is need to demystify the role of government as a business environment creator and enabler. This goes hand in hand with enhancing the spirit of entrepreneurship amongst MSEs and reduced over-reliance from government at both levels. For safety purposes, there is need to ensure that MSEs especially those in manufacturing and agribusiness have safety gears such as helmets, boots and overalls. The county governments need to ensure that standards are set and adhered to through relevant departments.

**b) *Market environment for MSEs***

The uptake of AGPO in prequalification is generally low amongst MSEs due to information asymmetry. Huge disparity in distribution of road infrastructure across counties exists. The key constraints on market access relate to MSEs acquiring certification that allows for access to local, national and international markets. Unhealthy competition and unfair trade practices impact on ability of MSEs to grow their trade. To facilitate MSEs, various actions are required to improve market environment:

- The National government through the AGPO Secretariat need to promote and enhance sensitization of MSEs on this affirmative action to increase awareness and encourage participation. This will give MSEs an opportunity to do business

with the government and promote buy Kenya, build Kenya initiative.

- The National and County governments have a role in creating an enabling road infrastructure to facilitate trade. While recent efforts by the national and some county governments (especially on the county roads) can be lauded, some counties have a lot to do in improving road infrastructure. Efforts to fund some of the road infrastructure projects through PPPs should also be encouraged.
- There is need to sensitize MSEs on how to produce goods of quality and acceptable standards for sale both locally and internationally. Institutions such as Kenya Bureau of Standards and Export Promotion Council have an important role to play. Collaborations between these institutions and MSEA would be vital to reach out to MSEs through the associations. National and county governments have a role in levelling the playing field for MSEs to address competition and unfair trade practices among MSEs.

**c) *Financial and technical capacity for MSEs***

There is moderate uptake of such financial innovations such as M-Pesa and M-Shwari by MSEs. Innovation is low among the MSEs due to high costs of innovation, lack of incentives to innovate and limited finance to fund innovative ideas and patenting. To enhance financial and technical capacity of MSEs, there is need to:

- Sensitize MSEs to on uptake of financial innovations which can be used as avenues for savings mobilization or long-term investment. The use of services such as CRB are avenues for promoting self-awareness in matters of financial integrity and credibility that MSEs need to embrace. Players in the financial sector such as banks, Saccos and micro finance institutions have an opportunity to penetrate and deepen financial service provision through financial innovations by targeting MSEs, as long as adequate financial literacy on financial discipline is provided.
- Encourage MSEs to come out of their comfort zones and innovate through such exposures as exhibitions. The national government should subsidize cost of innovation through KIRDI and patenting through KIPI.
- Come up with a national technical training, apprenticeship and certification programme to ensure standardization of skills. Some trainings should be conducted onsite to ensure MSEs can relate with practical side. Emphasis for training should be on new technologies and refresher courses. The government and development partners could subsidize training programmes. to incentivize MSE efforts. Efforts by stakeholders in the sector could be geared towards improving on training and capacity building initiatives to MSEs within the counties.



**d) Governance and regulation framework**

Service provision initiatives particularly licensing and issuance of permits by the national government through Huduma centres are bearing fruit. However, corruption and governance issues and security tend to increase cost of doing business for MSEs. These and other factors contribute to a good number of MSEs closing shop before their third anniversary in business. To increase the survival rate of MSEs, it important that:

- Counties legislate and harmonize the number of licenses or permits obtained by MSEs with an intent of reducing the bureaucracies involved. This can be done within the counties and through bi-lateral engagements across the counties. Regional economic blocs can also be used as avenues of rectifying the bureaucratic red-tapes involved therein that make it difficult to for MSEs to do business.
- The county governments seek to root out corruption especially among revenue collection officers. One of the approaches is by adopting digitization on all platforms of revenue collection and collaborating with agencies such as EACC to ensure prosecutions whenever such cases are reported.
- An office of registrar of associations under MSEA once fully established streamlines some of the anomalies in self-regulation in conjunction with the county governments.
- Both the national government and county government work together to ensure security measures are enhanced in/around worksites to reduce on crime and create a peaceful business environment.
- MSEA together with relevant departments at the county level dealing with matters of MSEs set standards guiding MSE associations in terms of processes and set a threshold on the amounts payable to associations as criteria to benefit from worksites. This should be set up by MSEA to reduce exploitation of MSEs.

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## References

- Fjose, S., Grunfeld, L. A. & Green, C. (2010). SMEs and growth in Sub-Saharan Africa: Identifying SME Role and obstacles to SME growth. MENON-Publication, 14, 1-28.
- Government of Kenya (2018). Third Medium-Term Plan: Transforming Lives – Advancing socio-economic development through the ‘Big Four’ Nairobi: Treasury and Planning
- Government of Kenya (2012). The Micro and Small Enterprises Act No. 55 of 2012. Nairobi. Government Printer.
- Kimuyu P.K. & Kayizzi-Mugerwa, S.(1998). Enterprise Response to Deficient Infrastructure Discussion Paper No. DP/011/98, Institute of Policy Analysis and Research, Nairobi, Kenya.
- KIPPRA. (2019). A Technical Report on Coordination of the MSE sector in Kenya. Nairobi: Unpublished Client Report for MSEA.
- Kenya National Bureau of Statistics. (2016). *Micro, Small and Medium Establishments Survey: Basic Report*. Nairobi: KNBS.
- Moyi, E., & Njiraini, P. (2005). Misallocation of Workspaces for MSEs in Kenya: Some Lessons and Models. Nairobi: KIPPRA Discussion Paper No. 53.
- World Bank. (2018a). *Doing Business 2019: Training for Reform*. World Bank Group.
- World Bank. (2018b). *Distance to Frontier and Ease of doing Business*. World Bank Group.
- World Bank (2016). *Doing business in Kenya 2016*. World Bank Group
- World Economic Forum (2018). The Global Competitiveness Report 2018. World Economic Forum

## Appendices

### Appendix 1: Global Ease of Doing Business indicators

Indicator	What is measured
Starting a business	Procedures, time, cost and paid-in minimum capital to start a limited liability company
Dealing with construction permits	Procedures, time and cost to complete all formalities to build a warehouse and the quality control and safety mechanisms in the construction permitting system
Getting electricity	Procedures, time and cost to get connected to the electrical grid, the reliability of the electricity supply and the cost of electricity consumption
Registering property	Procedures, time and cost to transfer a property and the quality of the land administration system
Getting credit	Movable collateral laws and credit information systems
Protecting minority investors	Minority shareholders' rights in related-party transactions and in corporate governance
Paying taxes	Payments, time and total tax rate for a firm to comply with all tax regulations
Trading across borders	Time and cost to export the product of comparative advantage and import auto parts
Enforcing contracts	Time and cost to resolve a commercial dispute and the quality of the judicial processes
Resolving insolvency	Time, cost, outcome and recovery rate for a commercial insolvency and the strength of the legal framework for insolvency

Source: World Bank (2018a)

### Appendix 2: Number of targeted and sampled associations

County	Number of associations completed	Targeted number of Associations	% of target completed
Baringo	4	6	67
Bomet	4	6	67
Bungoma	7	11	64
Busia	5	10	50
Elgeyo Marakwet	4	5	80
Embu	8	7	114
Garissa	11	13	85
Homa Bay	9	9	100
Isiolo	1	2	50
Kajiado	6	6	100
Kakamega	10	20	50
Kericho	6	6	100
Kiambu	16	16	100

Kilifi	7	9	78
Kirinyaga	8	8	100
Kisii	16	16	100
Kisumu	20	22	91
Kitui	4	5	80
Kwale	15	13	115
Laikipia	9	17	53
Machakos	10	9	111
Makueni	8	11	73
Mandera	15	11	136
Marsabit	2	4	50
Meru	13	14	93
Migori	6	7	86
Mombasa	11	13	85
Murang'a	11	11	100
Nairobi	14	63	22
Nakuru	12	16	75
Nandi	2	8	25
Narok	3	3	100
Nyandarua	26	34	76
Nyeri	12	15	80
Samburu <sup>†</sup>	0	2	0
Siaya	9	9	100
Taita Taveta	7	11	64
Tharaka Nithi	5	8	63
Trans Nzoia	4	6	67
Uasin Gishu	8	8	100
Vihiga	7	8	88
Wajir	10	7	143
West Pokot	4	4	100
<b>Total</b>	<b>369</b>	<b>489</b>	<b>75</b>

Source: Author's calculations

NB: Four counties were not included in the study due to unavailability of information on existence and status of registered and active associations from the master list obtained from MSEA. They are: Lamu, Nyamira, Tana River and Turkana counties.

<sup>†</sup> Samburu county was not sampled due to ground logistical challenges during period of study

### Appendix 3: Worksite and related infrastructure sub-indicators scores

Indicator	Access to Worksites					Common Manufacturing facilities			
	Procedures	Costs	Time	Legality	Distance	Distance	Procedures	Cost	Time
Baringo	7.46	19.79	67.20	5.44	17.97	-	-	-	-
Bomet	17.41	19.89	14.99	8.86	37.64	7.95	7.96	7.88	7.96
Bungoma	13.00	31.18	41.60	18.60	68.47	-	-	-	-
Busia	46.56	52.83	88.74	40.13	60.43	-	-	-	-
Elgeyo Marakwet	8.30	8.29	8.30	24.70	32.28	-	-	-	-
Embu	5.80	23.18	30.87	19.31	42.28	4.63	-	-	-
Garissa	1.96	-	3.98	13.52	77.45	12.44	4.71	6.28	6.28
Homa Bay	49.88	26.56	52.65	28.39	54.31	15.66	9.31	10.51	15.96
Isiolo	9.94	26.34	26.50	7.07	12.51	10.57	7.95	21.06	21.20
Kajiado	16.63	26.29	63.69	30.59	23.83	10.51	7.98	15.93	21.27
Kakamega	56.31	92.20	76.72	87.60	82.21	68.82	26.50	10.60	10.60
Kericho	24.94	19.91	33.21	19.78	36.46	-	-	-	-
Kiambu	53.20	19.95	53.19	58.08	90.81	5.32	5.32	5.28	5.32
Kilifi	6.38	8.50	25.45	32.14	51.00	6.76	-	6.80	6.80
Kirinyaga	26.60	26.59	26.60	26.60	49.65	5.30	-	-	-
Kisii	79.80	39.86	90.95	26.95	90.40	36.57	9.31	21.14	26.60
Kisumu	65.70	79.62	71.64	32.45	84.92	5.84	-	23.17	11.62
Kitui	4.15	8.30	14.55	0.07	29.28	-	-	-	-
Kwale	18.69	17.25	62.45	43.41	59.80	18.33	10.35	18.33	32.15
Laikipia	28.13	37.34	84.45	82.13	78.47	9.97	17.50	10.00	29.78
Machakos	78.11	75.24	89.30	87.89	58.21	14.18	11.90	14.21	23.79
Makueni	25.03	18.20	81.72	53.47	55.41	14.49	3.64	14.55	29.12
Mandera	26.68	4.85	38.80	53.62	56.18	23.18	9.70	11.62	45.95
Marsabit	6.63	26.45	53.00	26.50	24.14	-	-	-	-
Meru	14.30	7.15	14.30	63.99	80.56	22.64	10.01	5.72	22.82
Migori	34.88	54.14	46.43	5.74	38.97	18.21	6.20	18.59	18.11
Mombasa	74.33	92.34	80.81	62.03	81.25	6.28	4.71	-	25.12
Murang'a	38.24	26.55	46.53	41.73	59.44	15.76	5.32	5.31	10.64
Nairobi	74.50	87.58	85.81	75.99	84.57	42.56	27.28	70.86	40.39
Nakuru	77.61	88.60	90.55	75.32	73.99	6.99	7.08	6.89	7.07
Nandi	26.50	26.45	26.50	35.62	49.32	-	-	21.20	42.17
Narok	13.25	13.25	13.25	12.12	16.38	-	-	-	-

Nyandarua	97.31	85.90	69.97	94.97	50.97	27.38	8.65	13.83	48.17
Nyeri	53.95	57.88	20.80	29.57	80.14	6.64	3.32	6.64	6.64
Siaya	41.61	39.45	91.76	34.50	51.54	-	-	-	-
Taita Taveta	59.00	61.85	80.95	53.16	65.81	15.59	8.32	16.61	58.24
Tharaka Nithi	5.30	31.04	30.90	23.85	47.11	7.42	4.24	24.35	8.48
Trans Nzoia	24.88	29.81	49.53	29.40	37.87	15.90	7.96	7.95	15.92
Uasin Gishu	14.96	6.65	39.90	40.70	40.75	10.64	3.99	5.32	10.64
Vihiga	24.54	45.25	87.50	48.28	46.14	6.04	6.04	-	6.04
Wajir	15.11	4.65	27.89	18.08	28.03	7.35	6.51	3.70	7.44
West Pokot	26.60	19.91	19.95	12.60	24.27	5.32	5.32	5.31	5.32

*NB: (-) Means non-response*

Appendix 4: Worksite and related Infrastructure sub-indicators scores

Indicator	Electricity connection						Water connection						
	Procedures	Cost	Time	Charges	# Outages	# Monitoring	Procedures	Cost	Time	Charges	Shortage	# Monitoring	
County/Sub-indicator													
Baringo	44.93	70.79	88.44	34.94	31.44	0	17.91	47.69	46.54	23.86	20.83	0.39	
Bomet	20.90	23.59	23.88	23.73	22.29	0	31.94	51.94	21.71	61.84	11.81	0.39	
Bungoma	6.24	24.67	61.84	24.95	22.88	0	9.36	24.96	24.48	12.46	10.82	-	
Busia	15.90	15.90	15.38	15.90	2.65	0	-	-	-	-	-	-	
Elgeyo Marakwet	9.96	9.75	9.88	18.98	15.60	0	7.47	19.91	19.73	13.69	9.74	0.32	
Embu	18.7	32.46	92.51	34.70	38.74	0	3.48	34.76	82.54	27.82	39.44	1.12	
Garissa	18.84	18.66	65.91	47.05	41.76	0	32.36	28.23	82.87	65.73	52.33	4.25	
Homa Bay	23.94	15.70	14.36	23.90	17.02	0	11.97	31.84	23.90	15.91	14.10	5.15	
Isiolo	0	15.90	79.47	15.90	15.37	0	3.98	31.76	31.50	15.82	14.49	0.51	
Kajiado	17.96	39.62	55.30	39.89	35.38	0	17.96	39.69	55.28	31.37	20.75	0.26	
Kakamega	75.53	67.55	60.72	91.15	78.44	23.85	75.53	79.18	76.54	79.18	76.67	4.62	
Kericho	2.00	7.98	30.32	23.49	21.01	0	23.70	36.39	57.86	67.98	5.74	0.26	
Kiambu	60.86	31.87	55.69	95.58	90.71	0	31.92	23.91	31.92	55.53	54.71	1.80	
Kilifi	28.05	60.62	90.86	71.32	48.96	5.10	17.85	20.32	29.43	30.52	28.11	0.33	
Kirinyaga	15.96	7.98	15.96	47.87	43.62	0	15.96	15.96	15.96	39.86	38.92	1.29	
Kisii	81.85	54.73	97.88	71.72	63.84	0	23.94	31.90	31.92	31.86	28.99	0.26	
Kisumu	95.41	87.52	95.62	93.84	88.62	20	24.09	25.58	25.56	8.75	25.60	9.33	
Kitui	0	19.83	0	29.86	26.89	0	-	-	-	19.85	13.50	0.32	
Kwale	10.35	13.52	34.50	41.38	28.06	0	36.23	38.75	41.32	34.46	19.09	7.35	
Laikipia	77.25	85.85	89.23	91.84	77.50	0	43.75	74.12	93.72	57.12	57.00	2.91	
Machakos	27.14	70.94	90.39	49.95	53.08	0	-	28.49	28.50	21.38	19.28	0.46	

Makueni	60.03	64.32	91.79	65.47	67.32	0	64.57	65.24	90.10	54.28	41.86	0.35
Mandera	32.01	23.13	28.56	23.26	23.09	0	5.82	5.82	34.70	34.56	16.36	6.20
Marsabit	11.93	31.78	31.79	15.90	12.72	0	7.95	31.78	47.09	15.88	10.60	0
Meru	47.19	42.60	51.46	94.33	85.80	0	36.47	25.68	55.67	51.44	57.20	3.60
Migori	25.58	46.12	83.60	37.11	33.79	0	16.28	27.71	27.90	18.59	14.98	0
Mombasa	11.78	74.16	93.80	56.48	47.10	0	14.13	37.60	74.56	28.08	25.96	0
Murang'a	23.94	23.19	31.79	63.81	57.46	0	15.96	15.96	15.96	31.86	23.50	8.24
Nairobi	90.60	87.22	93.79	83.96	84.16	39.61	56.22	72.71	56.63	70.07	60.98	19.62
Nakuru	66.38	89.10	95.71	95.55	87.44	25.90	23.90	74.16	72.77	52.14	59.35	10.62
Nandi	23.85	63.58	30.66	61.53	54.06	0	-	-	-	-	-	-
Narok	5.85	23.23	15.58	15.59	14.56	0	3.99	23.91	23.87	7.96	7.71	0.26
Nyandarua	41.52	84.38	83.29	85.04	95.77	32.11	18.17	93.08	92.79	50.87	58.13	2.34
Nyeri	53.86	58.55	78.80	90.51	80.60	24.08	17.43	39.78	29.63	69.63	38.29	19.60
Siaya	75.94	55.40	94.54	55.84	61.50	0	2.00	15.94	31.77	15.93	13.12	0
Taita Taveta	57.44	71.62	86.96	62.33	63.28	0	32.48	62.24	91.98	49.76	36.89	4.43
Tharaka Nithi	25.44	63.44	50.82	38.15	27.14	0	28.62	25.42	63.56	38.14	37.59	1.64
Trans Nzoia	-	-	-	0	9.95	0	17.91	35.69	35.61	23.84	22.16	0.39
Uasin Gishu	2.00	31.76	31.92	21.12	22.34	0	60.63	30.35	25.40	11.53	7.98	0.26
Vihiga	9.06	-	-	9.06	7.55	0	15.86	18.12	18.12	18.11	16.91	0
Wajir	31.16	72.02	87.83	48.99	38.83	0	12.56	22.11	27.44	11.16	10.97	0.18
West Pokot	7.98	7.82	7.98	7.98	6.38	0	-	-	-	-	-	-

NB: (-) Means non-response



Appendix 5: Worksite and related infrastructure sub-indicators scores

Indicator County/Sub-indicator	Public toilets			Waste Management			Charges	# Monitoring	
	Distance	Time	Cost	Procedures	Cost	Time			Distance
Baringo	11.87	8.36	11.89	9.55	11.94	16.72	34.25	11.94	4.78
Bomet	17.66	13.73	11.89	-	-	-	23.72	11.94	11.94
Bungoma	24.89	11.54	12.43	9.98	12.48	23.71	49.73	12.48	0.83
Busia	23.83	14.71	7.95	-	-	14.84	31.78	15.90	0.53
Elgeyo Marakwet	14.93	13.70	9.92	7.97	8.63	36.52	39.75	29.83	9.96
Embu	20.79	13.05	13.83	-	-	15.78	19.05	20.88	4.41
Garissa	23.30	21.20	23.39	3.77	28.22	53.69	77.89	18.79	13.50
Homa Bay	23.20	15.36	19.82	6.38	15.95	23.14	37.80	15.96	22.88
Isiolo	7.75	3.98	7.88	-	-	-	-	-	-
Kajiado	19.90	17.56	19.82	6.38	15.94	21.28	31.27	20.21	1.06
Kakamega	47.37	36.17	27.83	-	-	-	47.66	15.90	15.90
Kericho	19.82	7.78	7.95	11.17	23.69	22.34	47.80	15.93	7.98
Kiambu	39.64	23.34	27.75	6.38	15.95	70.76	85.94	23.94	1.86
Kilifi	29.92	20.15	25.33	-	10.20	20.06	38.24	29.75	1.36
Kirinyaga	23.64	17.16	7.95	-	-	22.34	31.27	23.93	1.06
Kisii	47.76	41.70	23.81	6.38	15.94	34.05	30.22	15.32	6.38
Kisumu	54.11	46.43	45.00	-	-	-	17.50	8.76	0.29
Kitui	19.81	14.44	14.86	-	-	23.90	29.73	9.96	1.99
Kwale	30.25	27.08	10.29	-	6.90	18.40	20.61	6.90	0.23
Laikipia	29.33	22.13	14.97	15.00	43.00	50.00	57.19	15.00	5.50

Machakos	24.84	19.28	3.54	-	-	-	49.32	14.13	13.80
Makueni	32.58	28.67	5.46	-	-	21.11	21.16	10.92	0
Mandera	20.27	14.70	5.77	4.66	5.82	37.83	68.99	28.08	11.06
Marsabit	7.95	7.55	7.82	-	-	15.37	31.36	15.90	-
Meru	42.44	32.82	8.54	6.86	8.58	59.20	75.06	17.07	1.43
Migori	22.98	17.21	13.87	7.44	9.30	35.34	49.80	13.02	0
Mombasa	14.00	9.18	6.99	-	-	-	25.85	28.22	3.14
Murang'a	27.40	26.53	15.86	6.38	9.95	39.63	52.52	31.91	1.86
Nairobi	45.93	51.92	37.07	29.50	32.68	25.34	21.41	38.84	30.57
Nakuru	36.97	26.02	26.35	14.87	39.95	36.11	77.46	42.43	19.47
Nandi	31.72	26.24	31.67	-	-	56.18	31.78	31.80	5.30
Narok	7.97	7.58	7.98	6.38	7.98	15.16	23.69	7.98	7.98
Nyandarua	35.64	57.35	20.63	20.76	29.91	48.63	50.85	31.00	11.42
Nyeri	24.85	22.16	17.76	-	-	-	29.78	19.91	12.62
Siaya	29.79	20.55	31.69	6.38	7.98	42.83	47.62	7.98	7.98
Taita Taveta	43.41	37.75	24.70	-	12.48	10.40	36.64	12.48	12.48
Tharaka Nithi	18.95	17.49	12.67	7.63	12.72	23.32	61.85	12.72	1.70
Trans Nzoia	17.89	16.42	11.89	9.55	11.94	22.29	35.29	11.94	0.40
Uasin Gishu	19.92	17.76	11.90	6.38	7.98	15.16	31.86	7.98	0.27
Vihiga	27.08	7.93	13.51	7.25	-	16.01	27.10	9.06	0.30
Wajir	5.58	2.65	2.79	7.81	11.06	5.21	16.03	5.58	0.74
West Pokot	11.95	10.77	7.95	6.38	7.98	19.95	26.84	15.93	0.80

*NB: (-) Means non-response*

Appendix 6: Market environment sub-indicators scores

Indicator	AGPO			Roads			Access to markets			Unfair competition
	Procedures	Costs	Time taken	Distance	Time	Cost	Distance	Time	Levies	
Baringo	-	-	-	23.84	22.95	11.74	23.87	23.85	23.11	7.94
Bomet	4.48	5.94	5.97	23.88	23.81	5.97	11.94	11.92	23.37	5.96
Bungoma	4.68	6.15	6.15	43.59	18.55	12.27	43.52	43.60	43.41	9.71
Busia	-	-	-	39.61	39.24	15.64	39.62	39.69	39.51	2.65
Elgeyo Marakwet	-	-	-	19.92	19.85	4.98	14.94	14.93	9.95	4.94
Embu	0	6.94	13.40	24.35	20.60	3.48	27.72	24.23	24.22	4.64
Garissa	1.18	18.06	28.05	51.75	46.60	13.91	42.26	42.27	41.92	3.13
Homa Bay	7.98	3.88	3.99	35.88	35.64	23.81	35.71	31.81	28.09	3.96
Isiolo	3.98	23.79	23.75	7.94	7.78	7.95	2.95	2.95	1.60	2.65
Kajiado	1.00	3.99	15.66	23.84	23.15	11.31	19.86	19.85	19.65	4.85
Kakamega	7.95	6.40	7.76	79.39	70.37	46.11	39.69	31.72	23.56	21.15
Kericho	-	-	-	23.94	23.87	3.99	15.94	15.95	15.82	6.60
Kiambu	3.99	3.92	3.99	55.70	58.87	54.42	59.20	59.25	42.05	6.61
Kilifi	-	-	-	35.62	34.85	19.89	23.76	25.41	25.33	8.51
Kirinyaga	-	-	-	31.79	27.04	27.08	19.84	19.80	17.31	3.97
Kisii	19.95	11.84	7.92	55.49	62.38	29.69	43.13	43.14	44.58	11.91
Kisumu	13.14	13.10	8.70	73.82	68.82	12.41	27.25	30.11	67.33	20.37
Kitui	2.49		4.91	19.01	18.91	18.26	18.49	19.58	19.79	
Kwale	2.59	6.88	10.33	47.63	49.52	31.28	29.39	27.62	37.30	8.80
Laikipia	1.88	7.50		66.49	63.77	49.90	66.31	66.95	66.93	7.49

Machakos	2.68	14.27	24.91	35.67	35.31	10.47	21.07	21.16	17.29	9.52
Makueni	5.47	5.47	5.44	38.16	37.66	16.09	37.95	32.47	32.72	9.10
Mandera	2.91	2.91	2.90	34.41	25.28	22.78	40.93	43.07	39.53	8.74
Marsabit	-	-	-	15.89	7.93	7.95	15.79	15.86	15.85	2.65
Meru	5.36	17.10	21.36	51.43	50.74	8.44	50.85	51.17	38.20	11.41
Migori	4.65	13.15	13.81	27.85	22.73	22.44	27.62	27.71	25.84	4.64
Mombasa	7.07	51.45	45.28	32.06	31.90	13.19	46.24	46.61	34.86	14.06
Murang'a	2.00	7.43	7.86	39.68	39.09	42.45	43.70	43.64	33.14	3.97
Nairobi	21.29	43.46	29.34	84.49	91.65	36.44	73.33	62.29	67.33	20.36
Nakuru	2.66	10.59	5.23	63.20	60.49	24.82	38.93	41.94	36.92	12.36
Nandi	11.93	31.62	15.90	31.72	31.60	31.27	31.75	31.77	31.48	5.30
Narok	-	-	-	11.73	11.45	10.51	7.87	7.94	11.43	2.65
Nyandarua	6.49	15.37	25.48	71.50	59.05	39.06	64.81	77.55	57.59	17.27
Nyeri	4.98	4.29	4.98	54.67	58.77	9.79	27.06	29.27	24.48	16.50
Siaya	3.99	3.99	3.99	35.86	35.54	7.58	31.88	31.87	19.79	1.32
Taita Taveta	4.68	18.58	18.59	36.93	36.17	23.84	37.17	37.19	24.77	7.63
Tharaka Nithi	-	-	-	31.76	31.51	12.59	8.48	19.06	18.90	10.60
Trans Nzoia	5.97	5.97	3.79	23.87	23.76	5.97	23.85	23.84	23.64	7.92
Uasin Gishu	6.98	15.83	7.98	31.76	19.62	11.68	23.70	23.84	11.89	7.94
Vihiga	7.93	4.53	31.57	31.55	31.41	8.15	31.54	31.62	31.58	3.03
Wajir	2.79	8.11	5.56	23.40	22.26	11.07	16.59	16.33	16.66	1.85
West Pokot	-	-	-	15.49	15.09	11.31	15.62	15.91	15.93	5.29

NB: (-) Means non-response

**Appendix 7: Financial and technical capacity sub-indicators scores**

Indicator	Access to digital finance				Training (capacity building) for MSEs		Innovations	Patenting	Knowledge and skills mapping		MSEs survival rate
	Mshwari	M-akiba	M-money	CRB	% of MSE proprietors trained	Cost			Technical skills gap	Cost	
Baringo	0.27	0.00	3.29	0.00	1.04	15.92	0.01	0.01	8.54	27.39	3.14
Bomet	4.51	0.00	3.05	1.36	4.66	15.92	0.25	-	8.41	27.31	2.93
Bungoma	0.42	0.00	4.41	0.71	2.91	4.16	-	-	5.96	62.05	5.58
Busia	5.83	1.06	3.29	0.30	3.24	-	-	-	4.62	62.74	3.11
Elgeyo Marakwet	0.66	0.00	2.65	0.00	-	-	0.04	-	3.60	12.93	3.19
Embu	0.46	0.46	3.01	0.00	5.73	34.12	0.02	-	10.32	31.60	4.11
Garissa	2.40	0.00	5.14	0.00	4.38	21.98	0.05	-	15.05	12.50	6.89
Homa Bay	3.09	0.00	10.69	0.45	7.53	31.52	1.45	-	11.27	20.06	1.51
Isiolo	0.35	0.00	1.06	0.00	5.22	5.30	-	-	1.46	10.01	2.35
Kajiado	5.48	0.00	3.53	0.00	2.54	13.25	0.07	-	5.76	23.79	2.54
Kakamega	8.13	0.00	9.93	0.00	25.39	30.27	0.90	0.15	23.38	15.45	8.60
Kericho	1.06	0.00	2.47	0.15	3.87	10.60	0.09	-	8.76	20.87	6.07
Kiambu	1.50	0.00	5.57	0.30	5.92	23.40	0.03	0.03	16.41	34.22	1.32
Kilifi	0.68	0.00	2.64	0.19	6.66	26.97	0.86	-	11.47	44.07	0.94
Kirinyaga	1.06	0.00	1.91	1.06	6.12	15.90	0.23	-	6.34	7.93	1.14
Kisii	2.92	0.00	19.38	0.15	9.59	36.97	1.15	1.34	14.62	28.70	5.99
Kisumu	9.33	0.00	14.01	0.50	20.24	92.33	0.58	0.21	16.50	40.13	9.01
Kitui	1.33	0.00	8.28	0.00	-	-	0.40	-	9.79	13.16	-
Kwale	1.07	0.00	3.63	0.13	2.55	11.49	-	-	5.02	31.83	0.87

Laikipia	14.85	8.01	10.95	0.00	7.25	40.05	0.22	-	20.24	28.74	10.53
Machakos	1.11	6.20	11.05	7.36	5.88	69.18	1.21	0.02	5.97	30.74	10.02
Makueni	8.26	0.00	5.73	0.00	2.36	39.94	0.08	-	8.35	32.65	2.68
Mandera	0.32	0.00	2.57	0.00	2.75	21.21	1.57	-	8.70	9.68	2.44
Marsabit	0	0.00	0.14	0.00	0.48	5.30	0.39	-	3.57	15.68	2.22
Meru	0.95	0.00	3.90	0.00	5.04	11.42	0.81	0.84	18.54	64.13	7.30
Migori	0.72	0.00	8.55	0.00	6.57	27.24	0.61	0.01	5.96	24.30	3.04
Mombasa	0.84	3.76	8.87	8.59	5.36	81.44	1.04	0.00	12.44	43.32	10.98
Murang'a	0.88	0.00	2.95	0.91	10.02	23.85	-	-	10.46	7.93	1.03
Nairobi	7.95	2.39	43.73	3.41	25.85	70.23	0.01	-	38.77	25.44	24.97
Nakuru	0.94	0.00	6.95	0.00	7.26	38.84	0.03	-	13.95	41.71	12.38
Nandi	5.65	0.00	3.39	0.00	9.62	21.20	0.40	-	9.04	52.86	8.09
Narok	0.09	0.00	2.37	0.15	0.89	12.85	-	-	2.03	5.22	2.27
Nyandarua	14.67	5.55	29.09	1.98	15.54	48.35	2.10	0.34	28.10	34.72	19.18
Nyeri	6.52	7.29	8.19	1.51	5.90	33.13	1.50	-	17.16	32.60	8.94
Siaya	10.34	0.00	3.62	0.00	2.58	10.60	2.49	-	10.51	29.01	2.62
Taita Taveta	0.97	0.00	2.08	0.71	4.87	12.49	0.05	-	6.87	82.96	3.56
Tharaka Nithi	0.28	0.00	1.33	0.00	3.52	16.96	0.58	0.13	9.80	20.63	6.00
Trans Nzoia	2.39	0.00	2.52	0.00	0.50	19.88	0.14	0.01	7.78	11.88	4.20
Uasin Gishu	6.27	0.00	3.55	0.15	7.09	21.20	0.08	-	8.96	39.39	5.82
Vihiga	4.04	0.00	3.94	0.87	4.31	13.90	1.39	0.49	7.13	30.10	4.46
Wajir	0.06	0.00	1.69	0.00	1.03	11.13	-	-	3.83	20.73	0.00
West Pokot	0.44	0.00	1.06	0.00	0.82	18.55	0.04	-	4.99	7.74	2.42

NB: (-) Means non-response

**Appendix 8: Governance and regulatory framework sub-indicators scores**

Indicator	Licensing and issuance of permits			Corruption and governance at work sites		Self - regulation			Crime and public security		
	Number of taxes	costs	Time taken	Frequency of victimization	Amount lost	Procedures	Costs	Time	Prevalence	Distance	Time
Baringo	17.89	47.46	53.55	11.88	11.91	13.42	35.31	69.79	17.47	17.87	16.29
Bomet	20.87	35.56	29.08	15.87	7.73	13.42	29.60	8.99	17.41	23.68	20.10
Bungoma	37.48	30.99	42.07	4.16	1.67	48.74	55.98	81.77	30.24	37.18	34.44
Busia	39.76	39.39	47.67	-	-	55.90	46.94	93.91	23.69	23.66	29.53
Elgeyo_Marakwet	17.39	29.73	21.17	3.31	3.31	7.45	34.55	44.22	14.61	19.75	18.88
Embu	22.61	44.02	49.02	16.11	16.05	25.22	40.68	91.04	16.52	27.57	18.12
Garissa	39.94	74.83	74.47	9.28	9.39	81.75	61.58	92.74	27.72	50.82	45.92
Homa Bay	25.84	71.12	54.85	5.18	2.65	21.87	51.33	62.46	19.04	31.56	29.07
Isiolo	5.96	15.79	15.90	-	-	1.99	31.32	31.78	7.87	7.91	7.35
Kajiado	21.87	30.99	35.32	10.50	5.29	8.95	36.63	79.17	15.31	15.78	17.81
Kakamega	47.71	62.93	31.46	20.76	15.84	33.79	77.52	52.04	38.80	78.93	58.80
Kericho	17.89	27.71	27.72	7.93	7.95	17.89	35.63	47.55	11.81	19.63	18.88
Kiambu	56.65	62.89	63.38	10.43	10.59	50.69	65.98	74.56	31.37	63.17	56.56
Kilifi	20.45	20.33	15.33	13.62	10.22	45.33	79.08	85.66	30.06	32.96	29.85
Kirinyaga	17.89	27.56	27.83	5.29	5.27	31.80	31.31	31.80	19.56	31.53	25.29
Kisii	46.71	89.88	95.00	21.11	16.19	60.75	79.85	89.43	23.46	63.22	60.04
Kisumu	69.97	92.16	54.56	49.01	14.56	53.89	95.64	43.80	68.09	86.16	76.18
Kitui	17.39	29.68	29.80	-	-	6.21	39.56	43.98	4.97	19.75	16.91
Kwale	33.59	51.04	41.39	16.05	9.18	45.84	67.36	92.75	17.09	50.81	43.81
Laikipia	68.81	83.99	88.36	14.99	10.01	60.65	86.30	88.33	51.36	66.78	59.76
Machakos	30.41	56.85	57.12	37.84	38.16	49.84	83.42	85.36	21.18	35.56	31.57

Makueni	34.17	54.41	48.88	14.47	14.57	75.03	90.40	92.92	29.14	37.91	33.99
Mandera	37.17	51.88	55.39	19.37	15.54	53.85	66.27	92.40	14.26	45.68	38.44
Marsabit	11.93	23.74	15.99	-	-	9.94	39.73	39.47	14.71	15.47	10.02
Meru	43.88	80.72	81.30	5.71	5.68	74.25	54.70	92.39	16.91	55.32	47.13
Migori	17.39	41.33	45.26	15.35	3.09	19.71	31.13	41.72	18.00	27.73	24.36
Mombasa	44.06	96.88	92.83	34.11	44.40	80.75	92.04	84.30	38.72	50.79	41.85
Muranga	38.76	62.84	63.60	2.65	2.65	39.76	57.48	59.63	31.49	43.59	41.89
Nairobi	71.27	87.09	95.57	40.18	30.14	66.54	85.91	90.43	44.57	58.51	66.79
Nakuru	71.68	87.41	90.32	31.59	28.25	67.11	89.37	96.16	35.46	63.13	55.86
Nandi	43.73	47.46	47.66	-	-	15.90	78.88	91.49	31.80	31.65	31.00
Narok	6.96	11.87	11.27	13.18	10.58	6.96	31.71	31.47	7.71	11.80	9.02
Nyandarua	56.69	93.98	97.97	51.58	31.92	67.19	85.17	96.41	39.63	60.98	51.14
Nyeri	47.21	84.05	49.35	36.28	29.17	31.06	78.60	13.27	29.52	59.29	53.66
Siaya	33.79	43.26	34.97	-	-	44.91	50.60	88.89	27.15	35.64	33.74
Taita Taveta	35.92	49.79	36.86	29.12	24.85	58.74	79.07	86.37	24.61	43.23	38.06
Tharaka_Nithi	22.26	37.95	38.16	33.63	25.21	24.31	54.49	91.65	18.76	31.39	26.73
Transzoia	22.36	29.70	29.82	-	-	11.93	41.44	71.33	11.87	23.81	23.20
Uasin_Gishu	26.84	31.57	31.65	6.44	7.92	21.87	43.37	65.29	10.61	31.74	30.74
Vihiga	30.67	36.22	29.93	9.07	8.92	20.22	35.93	92.37	13.54	31.69	30.12
Wajir	23.65	38.76	35.62	-	-	10.44	31.48	60.29	8.04	27.37	23.46
West_Pokot	14.91	19.82	23.12	2.64	2.65	5.96	27.64	54.99	7.87	15.63	13.86

NB; (-) Means non-response



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