The KENYA INSTITUTE for PUBLIC POLICY RESEARCH and ANALYSIS
Thinking Policy Together

RISA
Research and Innovation Systems in Africa

Research Ecosystem Strengthening through the Development of a Framework for County Business Environment for Micro and Small Enterprises in Kenya

Githinji Njenga
Judith Nguli
Rose Ngugi
Rodgers Musamali
Paul Lutta
Cecilia Naeku

SP No. 30/2022

UKaid
from the British people

Research Ecosystem Strengthening through the Development of a Framework for County Business Environment for Micro and Small Enterprises in Kenya

Githinji Njenga
Judith Nguli
Rose Ngugi
Rodgers Musamali
Paul Lutta
Cecilia Naeku

Kenya Institute for Public Policy Research and Analysis

Special Paper No. 30

March 2022

KIPPRA in Brief

The Kenya Institute for Public Policy Research and Analysis (KIPPRA) is an autonomous institute whose primary mission is to conduct public policy research leading to policy advice. KIPPRA's mission is to produce consistently high-quality analysis of key issues of public policy and to contribute to the achievement of national long-term development objectives by positively influencing the decision-making process. These goals are met through effective dissemination of recommendations resulting from analysis and by training policy analysts in the public sector. KIPPRA therefore produces a body of well-researched and documented information on public policy, and in the process assists in formulating long-term strategic perspectives. KIPPRA serves as a centralized source from which the Government and the private sector may obtain information and advice on public policy issues.

Published 2022

Bishops Garden Towers, Bishops Road
PO Box 56445-00200 Nairobi, Kenya
tel: +254 20 2719933/4; fax: +254 20 2719951
email: admin@kippra.or.ke
website: http://www.kippra.org

ISBN 978 9966 817 80 8

The KIPPRA Special Reports Series deals with specific issues that are of policy concern. The reports provide in-depth survey results and/or analysis of policy issues. They are meant to help policy analysts in their research work and assist policy makers in evaluating various policy options. Deliberate effort is made to simplify the presentation in the reports so that issues discussed can be easily grasped by a wide audience. KIPPRA appreciates any comments and suggestions arising from this report.

ACKNOWLEDGEMENTS

We take this opportunity to acknowledge the support, dedication, and hard work by various teams involved in undertaking this County Business Environment for MSEs (CBEM) research. Firstly, we acknowledge the immense effort by Mercy Jimmy, Janet Chebwogen, Joan Chebet, Monica Wanyoike and Haron Ngeno. Their tireless contributions made the delivery of this report possible..

Secondly, we wish to acknowledge funding by the Research and Innovation Systems in Africa (RISA), a multi-country project funded by the U.K. Foreign, Commonwealth and Development Office (FCDO) focusing on strengthening research and innovation systems in target countries, combining the fund manager requirements of two funds under the RISA umbrella: Strengthening Research Institutions in Africa (SRIA) and African Technology and Innovation Partnerships (ATIP). We thank the RISA Fund team and the FCDO team who worked closely with us and the research stakeholders in Kenya. The collaboration made it possible to deliver a high-quality project on time.

Thirdly, we thank the Micro and Small Enterprise Authority (MSEA) and the County Enterprise Development Officers for their efforts in mobilizing and coordinating the respondents, which was critical for the success of the report. We also express our gratitude to the research assistants who conducted the data collection exercise across the 47 counties of Kenya. Additionally, we are indebted to all those who participated in various stakeholder forums, case studies and very importantly, the respondents without whom this survey would not have been a reality.

EXECUTIVE SUMMARY

This research paper presents the County Business Environment for MSEs (CBEM) 2022. CBEM is a framework that provides a tool for monitoring progress in improving the business environment for growth and survival of MSEs. In 2019, KIPPRA developed the first version of CBEM covering four critical thematic areas that support growth and development of micro and small enterprises, including worksites and related infrastructure, market environment, technical capacity, and governance and regulatory framework. The CBEM 2022 extends this work to capture emerging issues affecting MSEs' business environment, including Internet connectivity within the worksites, trade participation in market environment and participation in policy and regulatory framework formulation under governance and regulatory framework. Further, two thematic areas on financial inclusion and risk preparedness and management are included, making up a total of 30 indicators.

The overall score for 2022 was 29.37, a slight improvement from the status in 2019 at 20.98. Self-regulation was ranked the highest performing indicator, demonstrating the efforts by MSEs to form associations to support their operations. Innovation and patenting pillars scored the least, indicating the need to emphasize on policy interventions that promote innovations and subsequent patenting among the MSEs. On average, the counties that ranked top of the score were Nairobi, Nandi, Kiambu and Nyeri.

The project that generated work on the CBEM demonstrates the role of KIPPRA, as a think tank and research intermediary, in strengthening frameworks and tools for coordinating key stakeholders in the research ecosystem in Kenya to dialogue, network and enhance research uptake to inform the improvement of the business environment for growth and survival of MSEs in Kenya. Through the project, five ecosystem strengthening goals have been achieved, as part of the RISA Fund, namely: the building of human capital for the research stakeholders involved, enhancing research uptake into policies and regulations at the national platform and county level, equitable and inclusive participation devolved to each of the 47 counties, the networking of assets to drive collaboration between research actors and policy makers, and providing incentives for high quality research and improvement in the business environment for growth and survival

of MSEs. Overall, the key findings of the project on CBEM are summarized below in sections (a) – (f).

a) Worksites and related infrastructure

The National Government through MSEA has gained significant milestones in improving MSEs' worksites. However, a large percentage of MSEs still operate from undesignated worksites. For the few available permanent and semi-permanent worksites, there are bureaucracies in obtaining them, which results in corruption practices as MSEs struggle to obtain worksite allocations. There are inadequate supporting amenities such as water supply, solid waste management, public toilets, and Internet, thus making it difficult for MSEs to conduct their business with ease. Water supply and internet connection are the most affected supporting amenities. The health and economic consequences of limited access to water increases the cost of doing business for MSEs and reduces the decency of the worksites. In this era of increased online transactions, limited Internet connections at the worksites limits MSEs from accessing diverse online markets and therefore grow e-commerce among the MSEs. Thus, there is a need to develop more worksites fitted with adequate amenities and improve the existing ones in responding to the needs of MSEs.

b) Market environment

The role of suitable market environment for MSEs is key in determining their sustainability in the market. A negligible number of MSEs are aware of or participate in Access to Government Procurement Opportunities (AGPO), which weakens the ability to meet the key objective of enhancing market access to disadvantaged groups such as women and youth, who form the largest share of MSEs. Unfair competition which presents itself in various forms including dumping, counterfeiting and misrepresentation serves to intensify discrimination against the MSEs' products which are viewed as of low quality. Limited approaches to promote cross county and international trade such as trade fairs and exhibitions contribute to limited awareness to MSEs on export market and the required standards, thus reducing their competitiveness. Therefore, it is necessary to streamline the AGPO systems to increase visibility and affordability by MSEs and also enhance sensitization to MSEs on opportunities provided for them in AGPO. In addition, the relevant authorities need to tighten the available measures to address unfair trade practices and ensure prosecution of the reported cases.

c) Financial inclusion

Financing remains a challenge among the MSEs in all the counties. While financial institutions have largely been expanded to most parts of the county, MSEs still face a challenge in accessing formal financial institutions for both savings and

credit. The challenge is further compounded by limited awareness on financial innovative approaches, including the established credit guarantee scheme. Therefore, there is need to enhance financial awareness and literacy among the MSEs on financial services, including the recently established credit guarantee schemes and management of credit to avoid worsening credit rating. Coupled with this is the use of non-traditional collaterals such as intellectual properties and movable assets.

d) Technical capacity

While MSEs are aware of their skills gap, capacity building is limited especially in financial, managerial and industry relevant skills. This reduces the effectiveness and productivity of human capacity, with generally low ability to cope with technology. For the few MSEs engaged in innovation, there is limited protection of their intellectual property. Establishment of incubation centres provides MSEs, especially the startups, with financial and technical support to ideate, operationalize and commercialize their business ideas, consequently exploiting fully the potential of the MSE sector.

e) Governance and regulatory framework

Robust governance and regulatory framework play an important role in increasing the efficiency and effectiveness of MSEs. There is a high level of self-regulation characterized by well-functioning associations, and this has served to strengthen dialogue between MSEs and the government. However, multiplicity of licenses discourages formalization by some MSEs. Corruption within the worksites, which largely manifests in form of evading license fees, bribing for workspace allocation and securing of worksite amenities, requires reducing bureaucracies and strengthening oversight role within the worksites. Limited awareness and participation in policy formulation necessitates ramped up efforts to sensitize MSEs on their roles and accompanying benefits to public participation.

f) Risk preparedness and management

MSEs are highly vulnerable to external risks, shocks, and hazards. Such risks disrupt the business operations, leading to losses and sometimes the closure of the business. However, they still present low affinity to uptake of social security, including health and business insurance. Thus, there is need to sensitize MSEs on the need to take protective measures in form of business and health insurance that can cushion them against unforeseeable risks.

ABBREVIATIONS AND ACRONYMS

AGPO	Access to Government Procurement Opportunities
ATIP	African Technology and Innovation Partnerships
CBEM	County Business Environment for MSEs
CEDOs	County Enterprise Development Officers
CRB	Credit Reference Bureau
DTF	Distance to Frontier
EACC	Ethics and Anti-Corruption Commission
EDBI	Ease of Doing Business Indicators
FCDO	Foreign Commonwealth and Development Office (UK)
GDP	Gross Domestic Product
GESI	Gender Equality and Social Inclusion
KIRDI	Kenya Industrial Research and Development Institute
KIPI	Kenya Industrial Property Institute
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KNBS	Kenya National Bureau of Statistics
KRA	Kenya Revenue Authority
MSE	Micro and Small Enterprise
MSEA	Micro and Small Enterprises Authority
MSME	Micro, Small and Medium Enterprise
NGOs	Non-Governmental Organizations
RISA	Research and Innovation Systems for Africa
SRIA	Strengthening Research Institutions in Africa

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

1. INTRODUCTION

There are over 7.4 million Micro and Small Enterprises (MSEs) in Kenya, employing 14.1 million persons in the formal and informal sector (KNBS, 2016). In terms of the number of people employed, the size of MSEs in both formal and informal enterprises employ 1-50 workers and cover key economic sectors including services, manufacturing, agribusiness, construction, mining, and quarrying. Most enterprises are micro, constituting the largest share (89.2%) of total firms in the sector compared to small enterprises which are 9.1 per cent. MSEs' are critical in supporting development in the country through employment creation, innovation, inclusive growth, and economic diversification (OECD, 2017). These enterprises therefore provide a source of livelihoods for most Kenyans, including the vulnerable populations such as women, the youth, and persons living with disabilities. Further, since they account for 95 per cent of the enterprises in the manufacturing sector, MSEs form a bedrock for industrialization. The Third Medium-Term Plan (2018-2022) of the Kenya Vision 2030 targets to have a robust, diversified, and competitive manufacturing sector to transform the country into a middle-income economy by year 2030. In addition, the manufacturing sector's contribution to GDP is targeted to increase to 15 per cent by 2022 (Government of Kenya, 2018). This implies that it is critical to provide a conducive business environment to MSEs to achieve the envisioned targets.

To unlock the potential of MSEs, focussing on critical issues affecting MSEs' business environment is therefore important. As identified in the Third Medium-Term Plan (2018-2022) of the Kenya Vision 2030, the challenges facing MSEs relate to skills development, provision of worksites, incubation services, innovation and technology transfer, provision of financing, quality improvement, branding and market access (Government of Kenya, 2018). The government is cognisant of these challenges and has continued to make efforts to ameliorate the situation. Such efforts include the review of Sessional Paper No. 2 of 2005 on Development of Micro and Small Enterprise for Wealth and Employment Creation for Poverty Reduction in 2020. The review of the policy was necessitated by the need to accommodate emerging issues impeding development of MSEs, emerging issues and developments in the country, and emerging development issues at the regional and global levels, which needed to be mainstreamed in the MSEs policy. The review resulted in development of Sessional Paper No. 05 of 2020 on the Kenya Micro and Small Enterprises, which seeks to provide an integrated enabling business environment for the growth and development

of MSEs. Among the targeted areas are skills, markets, infrastructure services, regulatory environment, financial products and services, and business external risks. Therefore, having a clear and effective framework to help in monitoring the implementation of such initiatives will go a long way in supporting growth and development of MSEs.

A framework to monitor the business environment for MSEs must also be cognisant of emerging risks that face MSEs. Such risk include the COVID-19, which has disproportionately affected lives and livelihoods of especially those engaged in MSEs. The measures put in place to deal with the pandemic, including numerous health protocols, stay at home, cessation of movement of both people and goods and closure of borders to stop the spread of the virus have negatively affected the MSEs. These measures have led to closure of MSEs, disrupted supply of inputs and outputs, incomes (earnings), and aggravated the dire unemployment situation. For instance, MSEs dependent on global supply chains in the automotive, electronics, agribusiness, and textile industries have faced significant disruptions to their operations. Those with forward and backward linkages with manufacturing and construction industries locally have also been disrupted due to shutdowns and scaled back operations (KNBS, 2020). Further, the informal sector employment, largely dominated by MSEs, declined by 3.6 per cent in 2020 compared to 2019 (KNBS, 2021).

To contribute towards improving the business environment for MSEs, KIPPRA developed a County Business Environment for MSEs (CBEM) framework in 2019. The framework identified key broad thematic policy issues, their indicators and sub-indicators vital for creating an enabling business environment for the MSEs sector in the counties. The thematic areas covered included worksites and adequacy of their infrastructure; market environment; financial and technical capacity; and governance and regulatory framework. The CBEM framework has additional indicators capturing Internet connectivity within the worksites, trade participation on market environment and participation in policy and regulatory framework formulation under governance and regulatory framework. Inclusion of Internet connectivity is important given the importance of e-commerce in sustaining businesses during the COVID-19 pandemic. Assessing trade participation by MSEs is also key in expanding MSEs markets. The participation in policy and regulatory framework formulation by MSEs facilitates in putting in place a conducive legal framework that does not constrain business growth. In addition, the revised CBEM framework captures two thematic areas in financial inclusion, and risk preparedness and management.

The revised framework is expected to play a critical role in identifying specific issues at county level that require policy interventions for improving the business environment and support in monitoring their implementation. Therefore, efforts will be made to share results with county governments to enable them prioritize their policy interventions. Further, results from this report are also expected to input to the development of the MTP IV (2023-2028) of the Kenya Vision 2030 on issues affecting MSEs.

In light of the foregoing, the purpose of this report is to extend the KIPPRA framework for improving the business environment for MSEs at the county level. The extended framework identifies key indicators for monitoring and evaluating the achievements relating to the business environment for MSEs in every county in Kenya. The development of the CBEM framework and report by KIPPRA, as a research intermediary, helps to put in place a mechanism for coordinating key stakeholders in Kenya's research ecosystem to dialogue, network and enhance research uptake to inform implementation of the business environment for MSEs in a devolved system of government in Kenya.

The rest of the report is organized as follows: Section 2 discusses the methodology used in constructing the framework, Section 3 reports the characteristics of business environment for MSEs across the counties, and Section 4 provides the conclusions and policy implications.

2. METHODOLOGY

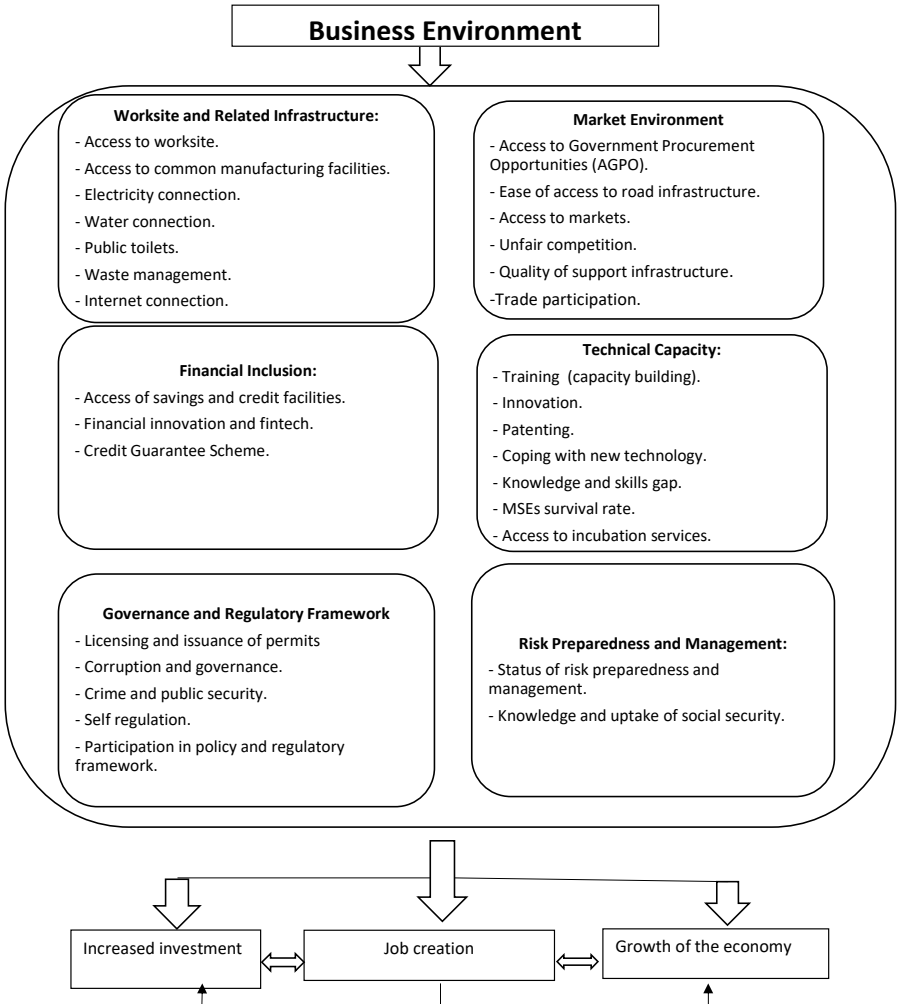
2.1 Conceptual framework

The revised business environment for MSEs was conceptualized within six broad thematic areas: worksite and its infrastructure, market environment, financial inclusion, technical capacity, governance and regulatory framework, and risk preparedness and management (Figure 1). The conceptual framework was guided by the literature and the 2019 CBEM framework,[1] the policy agenda, and insights from stakeholders.[2] Among the policy frameworks include the MTP III, Sessional Paper No. 05 of 2020 on the Kenya Micro and Small Enterprises (Government of Kenya, 2020), County COVID-19 Social Economic Re-Engineering Recovery Strategy 2020/21-2022/23 (KIPPRA and the Council of Governors, 2020). In each thematic area, several indicators and sub-indicators that relate to the areas are identified (Table 1). Conducive business environment within these areas across counties enhances MSEs growth, resulting to increased investment, creation of employment opportunities and growth of the economy. Since some thematic areas and indicators were not included in the CBEM framework 2019, Table 2 indicates the changes made in the CBEM framework 2022.

[1]https://repository.kippra.or.ke/handle/123456789/2080

[2]KIPPRA held virtual roundtable discussions on the revised CBEM framework with stakeholders across the country on 16th December 2021.

Figure 1: The conceptual framework on the business environment for MSEs



Source: Authors

Table 1: County Business Environment for MSEs (CBEM 2022) indicators and sub-indicators

Indicator	Sub-indicators
Worksite Infrastructure	
Access to worksites[3] (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; permanency of worksite structures; distance to worksites; and proportion of legal worksites
Access to common manufacturing facilities[4] (Common manufacturing facilities are facilities that MSEs use to process their products)	Procedures undertaken to benefit from common manufacturing facilities; distance to facilities; time taken by types of facilities; and official costs involved
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
Internet connection	Proportion of MSEs accessing Internet; procedures undertaken to access Internet; official cost of Internet connection; time taken to connect; average monthly costs of using Internet; duration and frequency of Internet outages; and average number of times to monitor Internet supply
Market Environment	
Access to Government Procurement Opportunities (AGPO)	Proportion of MSEs prequalified; procedures undertaken for prequalification into AGPO; time taken; and official costs involved
Ease of access to road infrastructure	Ease of access to road infrastructure; distance taken to access the nearest tarmac road; time taken; and costs involved
Access to markets	Average distance; time taken to nearest market; and the average county levies imposed on traders per month

[3]An area or location set aside for Micro and Small Enterprises' operations with or without supportive infrastructure.
[4]Common manufacturing facilities are facilities that MSE`s use to process their products.

Indicator	Sub-indicators
Unfair competition	Practices of manifestations of unfair competition among MSEs
Quality of support infrastructure	Condition of supporting infrastructure, which include roads, water services and drainage, security, waste management, heath facility, public toilets and sewerage, and presence of county market officials
Trade participation	Fairness of taxes, permits and licenses payable in neighbouring counties, approaches used to promote cross county trade, and approaches used to promote international trade
Financial Inclusion	
Access of savings and credit facilities	Number of institutions offering savings facilities and number of institutions offering credit facilities
Financial innovations and Fintech	Understanding and average use of financial innovations (M-pesa; M-Shwari; M-akiba and CRB)
Credit guarantee scheme	Awareness and likelihood of use of the scheme
Technical capacity	
Training (capacity building)	Number of MSEs trained, training areas, training duration, and costs involved
Innovation	Percentage of MSEs that have undertaken innovations in the last 3 years to the total membership of MSEs' associations
Patenting	Percentage of MSEs with patented innovations in the last 3 years to the total membership of MSEs' associations
Coping with new technology	Understanding of technological and innovation trends, and adaption of new technology
Knowledge and skills gaps	Technical skills gap and the costs involved in MSEs operators obtaining training in technical skills
MSEs survival rate	Percentage of MSEs that have closed shop in the first 3 years of operation
Access to incubation services	Procedures undertaken to benefit from incubation; time taken to be enrolled, and official costs involved
Governance and regulatory framework	
Licensing and issuance of permits	Number of permits; costs in acquisition and renewals; and time taken for acquisitions and renewals
Corruption and governance	Frequency of corruption within the worksites and the amount lost per person monthly
Crime and public security	Prevalence of crime; average distance and time taken to the nearest police station from the worksite
Self-regulation	Procedures followed to register into an association; average time taken; and costs involved
Participation in Policy and regulatory framework formulation	Proportion of MSEs that have participated in the process of formulating the policies, laws or plans that support the business environment
Risk preparedness and management	
Status of risk preparedness and management	Proportion of MSEs aware of need for risk preparedness and management, and proportion of MSEs that have taken measures to handle risk

Indicator	Sub-indicators
Knowledge and uptake of social security	Proportion of MSEs that have knowledge on importance of insurance for their business, proportion of MSEs that have knowledge on importance of health insurance, proportion of MSEs that have taken insurance for their business, and proportion of MSEs that have taken health insurance

Source: Authors

Table 2: Comparisons between CBEM framework 2019 and CBEM framework 2022

Thematic Area	Indicator	Changes included in CBEM framework 2022
1. Worksite and related infrastructure	i. Access to worksite	Permanency of worksite added as a new sub-indicator
	ii. Access to common manufacturing facilites	No change on common manufacturing facilities
	iii. Electricity connection	No change
	iv. Water connection	No change
	v. Public toilets	No change
	vi. Waste management	No change
	vii. Internet connection	Internet connection added as new indicator
2. Market Environment	i. Access to AGPO	No change
	ii. Ease of access to road infrastructure	No change
	iii. Access to markets	No change
	iv. Unfair competition	No change
	v. Quality of support infrastructure	Quality of support infrastructure added as a new indicator
	vi. Trade participation	Trade participation added as a new indicator
3. Financial Inclusion	i. Access to savings and credit facilities	Financial inclusion under financial and technical capacity in CBEM framework 2019 was added as a new thematic area. Access to savings and credit facilities added as new indicator for Financial Inclusion
	ii. Financial innovations and Fintech	Financial innovation and fintech, previously under financial and technical capacity in CBEM framework 2019 was re-assigned to financial inclusion
	iii. Credit guarantee scheme	Credit guarantee added as a new indicator in financial inclusion
4. Technical Capacity	i. Training (capacity building)	Training areas and training duration added as new sub-indicators

	ii Innovation	No change
	iii. Patenting	No change
	iv. Coping with new technology	Added as new indicator with
	v. Knowledge and skills gaps	No change
	vi. MSEs survival rate	No change
	vii. Access to incubation services	Access to incubation services added as a new indicator
5. Governance and Regulatory Framework	i. Licensing and issuance of permits	No change
	ii. Corruption and governance	Changed from Corruption and Governance at Worksites in CBEM framework 2019 to Corruption and Governance
	iii. Crime and public security	No change
	iv. Self-regulation	No change
	v. Participation in policy and regulatory framework	Participation in policy and regulatory framework added as new indicator
6. Risk preparedness and management	vi. Status of risk preparedness and management	Risk and preparedness and management added as a new thematic area with status of risk preparedness and management and knowledge and uptake of social security as indicators
	vii. Knowledge and uptake of social security	

Source: Authors

2.2 The analytical approach

The World Bank distance to frontier (DTF) approach was used in the CBEM framework (World Bank, 2018). Two steps were followed to compute the scores for the sub-indicators. Firstly, the indicators across the broad areas were normalized to have a common unit and transformed to measure an incremental value such that an increase in an indicator implies the indicator is approaching towards the frontier. Further, all the responses for each sub-indicator were examined and classified in terms of the best (here-in referred to as the frontier) and the worst scores. The best performance on the indicator formed the frontier while the worst performance was taken to represent the worst. Equation 1 shows how the score for the sub-indicator was calculated.

$$S = (Worst\text{-}y) / (Worst\text{-}frontier) \quad \ldots\ldots 1$$

Where y is the response given for each sub-indicator, *Worst* indicates worst performance and frontier shows best performance in each sub-indicator. The score ranges from zero (0) to one (1). Further, considering the number of respondents varied across the counties, a simple average was computed at each sub-indicator

level. Taking the average addresses the possibility of biasness brought about by non-uniformity in the sample size for the respondents across the counties. This average score for the sub-indicator represented the score for the county at the sub-indicator level before considering the weighting. To achieve the overall index score for the indicator, the summation average scores from the sub-indicators were computed. Since a uniform weighting of the sub-indicators was adopted, such that the maximum score for each sub-indicator was one, the summation of the index scores were then averaged to have a score ranging between 0 and 1, and later the scores were converted to percentages. Where the respondent was not able to provide the required information for an indicator, no score was given. In the results, such cases are indicated as dashes (-).

In the second step, weighting was introduced. The data was weighted by the number of respondents per indicator per county to address biasness resulting from over-representation and under-representation of counties with higher number of respondents. The total scores per indicator were averagely weighted to provide an aggregate score for the theme. The choice of the indicators to be included in the computation was not a factor since, theoretically, all the sub-indicators in the selected indicators had equal importance and was supported by literature, hence the use of the average method. The weighting adjustments were done as a way of increasing the sampling weights of the respondents to compensate for the non-responses. Computation of weighted averages involved multiplying each number by its weight (considering the actual number of respondents who answered more than half of the survey questions divided by the total targeted respondents), then multiplying by the total average scores derived; i.e.

Weighting=(1/((Actual respondents) / (Target respondents)))×(1/((Total actual respondents)/(Total target respondents)))

The sampling weights are calculated as the inverse of the product of the selection probabilities. In a few cases where the sampling weights were high due to low actual respondents, an average weighting was applied. Thereafter, the weighting is multiplied by the average index scores derived to give the final index of each indicator. The thematic area scores were then aggregated to get the final ranking score for counties.

*Theme scores=weighting*indicator scores*

2.3 Target Group

The CBEM framework targeted all the 47 counties in Kenya. The targeted respondents were MSEs' associations where a structured questionnaire was administered to the officials. These officials are also entrepreneurs and are hence privy to the business environment facing MSEs. The associations' membership is drawn from key sectors of the economy, including trade, agribusiness, manufacturing, and services.

2.4 Sample Size

The study used the lists of MSEs' associations registered with Micro and Small Enterprises Authority (MSEA) and the 2019 CBEM survey respondents to draw the sample size. A total of 224 associations were registered with MSEA at the time of this study while the 2019 survey list had 312 associations, a combination of fully registered MSEs and ongoing registration with MSEA. To make the study as representative as possible and deal with the challenges of some association officials not being available during the fieldwork exercise, all the MSEs' associations (i.e. 636) were considered. However, the study managed to interview a total of 687 MSEs' association because more associations were identified that were not registered with MSEA or were not recorded in the 2019 survey; these associations were identified during the fieldwork exercise through the support of the County Enterprise Development Officers (CEDOs) who provided the contacts of association officials. The 687 MSEs' associations represented a membership of 93,194 MSEs distributed across sectors as follows: trade (29.09%), agribusiness (14.75%), manufacturing (19.67%), and services (36.49%). The MSEs' associations were mainly in the 4 cities of Nairobi, Mombasa, Kisumu and Nakuru and other big towns in the counties. A few of the MSEs' associations were in small urban areas near the big towns.

2.5 Robustness of Composite Indicators

The composite indicators for the computation of the CBEM index involved a sequence of steps of computing the index using the Distance to Frontier (DTF) approach, the weighting and aggregation of the results. Testing for robustness acted as a quality assurance for the procedure and the data to ensure there is consistency in the steps followed in construction of the index and the steps available in the literatures. Further, it reduced the possibilities of conveying misleading results or missing out on some steps.

Steps used in conducting robustness: -

a) The first step involved the criteria for identifying the indicators and sub-indicators to be included in the index under each pillar (thematic area). The process comprised the selection of the indicators, treatment of missing data and non-responses, weighting, normalization, and aggregation of the scores. The selection of the indicators to include in the computation of the index was informed by the literatures and theory, whereby all the selected indicators had equal importance.

b) The Cronbach's alpha was used to measure the reliability or internal consistency of the set of indicators by predicting the strength of that consistency. It is computed by correlating the score of each indicator with the total score for each observation, and then comparing it to the variance for all individual item scores. The Cronbach alpha results range from 0 to 1 in providing the overall assessment of a measure's reliability. The rule of thumb is that:

- If $\alpha=0$, implies all of the scale items are entirely independent from one another, that is, not correlated or share no covariance.

- If $\alpha=1$, Implies as the number of items in the scale approaches infinity, that is, the higher the coefficient, the more the items have shared covariance and probably measure the same underlying concept.

- Alpha coefficients of below 0.50 are unacceptable.

- Between 0.65 and 0.80 (Or higher in many cases), presents a good coefficient (Pallant, 2020).

Table 3: Cronbach's Alpha Results

Thematic area.	Indicators	Cronbach's alpha	Decision
Worksite and related infrastructures	• Access to worksites • Access to common manufacturing facilities • Electricity connection • Water connection • Public toilets • Waste management • Internet connection	Scale reliability coefficient: 0.70 Average interitem covariance: 35.84 Number of items in the scale: 700	With the alpha coefficient of above 0.65, it reflects a good reliability. Therefore, inclusion of the 7 indicators gives a reliable and consistent index.
Market Environment	• Access to Government Procurement Opportunities • Ease of access to road infrastructure • Access to markets • Fair Competition • Quality of market support infrastructure • Trade participation	Scale reliability coefficient: 0.65 Average interitem covariance: 15.10 Number of items in the scale: 6.00	With the alpha coefficient of above 0.65, it reflects a good reliability. Therefore, inclusion of the 6 indicators gives a reliable and consistent index.
Financial Inclusion	• Access to savings and credit facilities • Financial innovations and fintech • Credit guarantee scheme	Scale reliability coefficient: 0.68 Average interitem covariance: 11.18 Number of items in the scale: 3.00	With the alpha coefficient of above 0.65, it reflects consistency and good reliability of results.
Technical Capacity	• Training (Capacity Building) • Innovation • Patenting • Coping with technology • Knowledge and skills gaps • MSEs Survival Rate • Access to Incubation Services	Scale reliability coefficient: 0.72 Average interitem covariance: 4.76 Number of items in the scale: 7.00	The alpha results indicate a strong and a good coefficient of 0.72 indicating a strong reliability
Governance and Regulatory Framework	• Licensing and Issuance of Permits • Corruption and Governance at worksites • Crime and Public Security • Self-Regulation • Participation in Policy and Regulatory Framework	Scale reliability coefficient: 0.82 Average interitem covariance: 13.60 Number of items in the scale: 5.00	With the alpha coefficient of above 0.65, it reflects consistency and good reliability of the results
Risk Preparedness and Management	• Status of risk preparedness and management • Knowledge and update of social security	Scale reliability coefficient: 0.67 Average interitem covariance: 61.15 Number of items in the scale: 2.00	The alpha results indicate a strong and a good coefficient of 0.67 indicating a strong reliability

3. CHARACTERIZING THE COUNTY BUSINESS ENVIRONMENT FOR MSEs

3.1 Overall Score and Ranking of Counties

In this report, 47 counties were assessed on business environment for MSEs. The average overall score for the counties for the CBEM 2022 scores was 29.37. The scores for CBEM 2019 was 20.98 as indicated in Table 4.

Table 4: The overall County Business Environment for MSEs score and rank

Counties	2022		2019	
	Score	Rank	Score	Rank
Nairobi	37.04	1	45.24	1
Nandi	35.60	2	21.19	16
Kiambu	34.67	3	28.12	10
Nyeri	34.01	4	25.87	13
Kirinyaga	33.80	5	13.17	33
Laikipia	33.73	6	34.64	5
Embu	33.63	7	17.28	26
Busia	32.81	8	17.15	27
Trans Nzoia	32.52	9	13.49	32
Elgeyo Marakwet	32.27	10	9.58	37
Kisumu	32.10	11	35.02	4
Vihiga	32.01	12	16.27	28
Isiolo	31.99	13	7.26	42
Kericho	31.76	14	12.91	34
Uasin Gishu	31.60	15	15.78	29
Baringo	31.47	16	15.77	30
Wajir	31.13	17	12.23	36
Murang'a	31.02	18	20.87	18
Kwale	30.68	19	20.99	17
Kilifi	30.64	20	19.31	21
Mombasa	30.46	21	31.80	7
Nyandarua	30.32	22	40.48	2
Bungoma	30.26	23	18.52	22

Counties	2022		2019	
	Score	**Rank**	**Score**	**Rank**
Kakamega	30.14	24	32.8	6
Taita Taveta	29.91	25	28.25	9
Bomet	29.85	26	12.51	35
West Pokot	29.64	27	8.66	40
Turkana	29.52	28	-	-
Kisii	29.48	29	31.42	8
Homa Bay	29.42	30	18.41	24
Nakuru	29.07	31	35.14	3
Siaya	28.82	32	19.71	20
Kajiado	28.57	33	15.66	31
Makueni	28.36	34	25.61	14
Machakos	28.21	35	26	12
Migori	28.19	36	17.30	25
Mandera	26.72	37	20.51	19
Nyamira	26.12	38	-	
Kitui	24.64	39	9.05	39
Tana River	24.42	40	-	-
Narok	24.02	41	7.40	41
Meru	23.33	42	27.79	11
Marsabit	22.51	43	9.32	38
Lamu	22.48	44	-	-
Tharaka Nithi	22.37	45	18.52	23
Garissa	20.69	46	24.23	15
Samburu	18.45	47	-	-
Average score	**29.37**		**20.98**	

Source: Authors' calculations

Note: A dash (-) denotes not assessed

On indicators, self-regulation scored the highest at 74.15. Access to market and crime and public security came second and third, respectively. Self-regulation was ranked first while licensing and access to worksites was ranked second and third, respectively, in 2019. Innovations and patenting scored the least, both in 2022 and 2019 as reported in Table 5.

Table 5: The overall scores and rank for CBEM indicators

Indicator	2022		2019	
	Average score	Rank	Average score	Rank
Self-regulation	74.15	1	54.58	1
Access to markets	71.17	2	30.87	7
Crime and public security	70.80	3	31.98	5
Ease of access to road infrastructure	70.54	4	31.03	6
Knowledge and skills gaps	50.11	5	19.87	10
MSEs' survival rate	45.24	6	5.34	17
Public toilets	44.67	7	20.76	9
Licencing and issuance of permits	42.69	8	44.12	2
Quality of support infrastructure	41.90	9	-	-
Access to worksite	40.98	10	41.96	3
Corruption and governance	33.36	11	13.10	13
Electricity connection	32.48	12	37.76	4
Unfair competition	30.55	13	7.86	15
Financial innovation and Fintech (access to digital finance in 2019)	30.44	14	2.86	18
Knowledge and uptake of social security	29.20	15	-	-
Status of risk preparedness and management	23.30	16	17.07	11
Waste management	23.04	17	10.53	14
Access to common manufacturing facility	18.24	18	-	-
Credit guarantee scheme	16.70	19	-	-
Coping with new technology	16.69	20	-	-
Training (capacity building)	14.11	21	15.62	12
Policy and regulatory framework	11.24	22	-	-
Trade participation	9.91	23	-	-
Water connection	8.58	24	25.94	8
Access to Government Procurement Opportunities	8.46	25	7.80	16
Access to incubation Services	8.44	26	-	-
Access to savings and credit facilities	7.93	27	-	-
Internet connection	3.94	28	-	-
Innovation	1.64	29	0.50	19
Patenting	0.62	30	0.09	20

Source: Authors' calculations
Note: A dash (-) denotes not assessed

3.2 Worksite and Related Infrastructure

Worksite and related infrastructure include access to worksite, access to common manufacturing facilities, electricity connection, water connection, public toilets, internet connectivity and waste management. The scores for the worksite and related infrastructure indicators for the counties are reported in Table 6. Of these indicators, access to public toilets and access to worksite (procedures to access worksites, related costs, time taken; permanency of worksite structures, distance to worksites and proportion of legal worksites) emerged top with a score of 44.67 and 40.98, respectively. Electricity connection and waste management were ranked third and fourth, respectively, with an average score of 32.48 and 23.04, respectively. In addition, as indicated in Table 6, access to common manufacturing facilities, water connection, and Internet connection scored lowest in the classification. The best counties in worksite and related infrastructure were Nandi, Kirinyaga, Isiolo, Nyeri and Baringo. In 2019, access to worksites also ranked first with an average score of 41.96, while water connection came in second with a score of 37.76 and waste management came third at a score of 25.67. The best counties then were Nairobi, Nakuru, Nyandarua, Kakamega and Laikipia.

Table 6: The scores for worksite and related infrastructure indicators

Counties	Access to worksite	Accessto common Manu-facturing facilities	Electric-ity con-nection	Water connec-tion	Public toilets	Waste Manage-ment	Internet Connec-tion	Average
Baringo	50.98	21.29	55.55	23.65	48.73	41.57	0.62	34.63
Bomet	40.68	10.55	31.08	2.61	27.36	34.24	4.76	21.61
Bungoma	40.50	10.32	20.21	13.44	53.03	33.80	4.01	25.04
Busia	45.74	22.18	41.15	6.84	41.70	35.40	9.53	28.93
Elgeyo Marakwet	51.86	10.46	34.18	15.31	67.76	55.34	1.59	33.78
Embu	50.28	22.79	40.15	16.66	65.93	31.41	7.47	33.53
Garissa	35.63	13.98	6.64	3.98	25.48	13.54	4.10	14.76
Homa Bay	45.66	7.20	41.33	8.64	48.09	15.19	4.52	24.37
Isiolo	38.10	68.80	59.24	14.33	71.67	-	-	36.02
Kajiado	28.44	17.92	9.62	1.91	37.27	1.91	6.51	14.80
Kakamega	46.38	26.52	37.81	11.71	37.27	26.52	3.08	27.04
Kericho	49.56	24.94	23.98	15.05	65.93	40.61	4.01	32.01
Kiambu	50.11	18.10	34.13	11.41	50.31	41.13	6.26	30.21
Kilifi	46.50	7.53	29.54	4.48	53.75	9.85	2.30	21.99
Kirinyaga	48.03	19.03	44.82	28.85	66.65	51.00	2.52	37.27
Kisii	40.01	24.33	25.37	1.24	36.67	10.67	2.26	20.08

Counties	Access to worksite	Accessto common Manu-facturing facilities	Electric-ity con-nection	Water connec-tion	Public toilets	Waste Manage-ment	Internet Connec-tion	Average
Kisumu	46.85	21.40	41.47	11.84	43.00	24.18	3.86	27.51
Kitui	30.07	28.31	8.97	11.15	43.00	18.58	-	20.01
Kwale	36.11	14.69	19.86	-	62.11	7.17	5.69	20.80
Laikipia	42.68	8.92	50.35	21.74	46.82	54.79	3.29	32.65
Lamu	42.13	56.11	21.50	-	-	-	-	17.11
Machakos	33.94	24.67	24.22	1.89	39.98	6.04	4.81	19.36
Makueni	34.26	12.03	15.06	5.38	49.27	11.20	3.66	18.69
Mandera	32.40	14.24	29.55	0.90	25.08	25.98	-	18.31
Marsabit	33.49	18.71	29.26	-	11.47	11.47	9.04	16.20
Meru	38.99	15.05	29.63	7.38	43.84	19.81	0.84	22.22
Migori	42.61	19.16	37.01	0.90	33.79	14.85	6.46	22.11
Mombasa	37.45	10.01	10.10	-	42.90	4.77	3.83	15.58
Murang'a	46.55	17.51	32.37	10.24	57.33	17.40	2.01	26.20
Nairobi	46.40	10.92	41.33	14.14	55.59	53.11	4.19	32.24
Nakuru	46.79	15.93	37.44	6.78	35.32	25.34	5.62	24.75
Nandi	52.42	32.97	47.32	11.55	70.07	55.21	7.31	39.55
Narok	32.82	14.37	21.64	4.56	19.55	6.08	8.41	15.35
Nyamira	38.20	7.47	25.15	0.40	20.70	5.44	1.54	14.13
Nyandarua	46.06	8.55	39.56	9.59	46.94	40.37	3.08	27.74
Nyeri	43.87	13.64	47.62	19.45	70.03	47.30	2.35	34.89
Samburu	29.54	17.26	29.25	5.12	12.29	8.19	0.88	14.65
Siaya	40.85	13.26	41.10	6.37	23.89	14.33	6.83	20.95
Taita Taveta	42.66	41.39	51.03	5.38	43.00	-	1.54	26.43
Tana River	25.35	-	28.69	20.31	28.67	4.78	-	15.40
Tharaka Nithi	24.15	14.97	13.70	11.42	28.67	5.82	1.99	14.39
Transnzoia	47.12	20.86	40.48	14.33	54.94	23.89	5.48	29.59
Turkana	35.71	-	30.72	10.15	62.11	27.47	1.03	23.89
Uasin Gishu	46.47	19.48	40.10	10.75	60.71	41.03	2.36	31.56
Vihiga	48.02	23.22	37.86	1.43	64.50	7.88	12.64	27.94
Wajir	45.87	16.43	45.08	-	57.33	36.86	4.83	29.49
West Pokot	27.70	-	24.58	-	49.14	21.50	7.93	18.69
Average	**40.98**	**18.24**	**32.48**	**8.58**	**44.67**	**23.04**	**3.94**	**24.56**

Source: Authors calculations

Note: A dash (-) denotes not assessed

3.2.1 Access to worksite

Of all the respondents, 70.40 per cent reported to have access to worksites, indicating increased efforts of institutional and policy support to MSEs. The index nuanced the access to worksite in terms of procedures taken to access a worksite, time taken to complete acquiring a worksite, official cost needed to acquire a worksite, the number of legal worksites available, the nature of the worksites, distance to the worksite and the average time taken to access a worksite by respective MSE association.

Overall, Nandi County ranked best on access to worksite with a score of 52.42. Elgeyo Marakwet, Baringo Embu, and Kiambu counties also ranked high. Samburu, Kajiado, West Pokot, Tana River, and Tharaka Nithi counties scored the least. In 2019, Nairobi County was the best ranked with a score of 81.69, with Kitui County scoring the least at 11.25. Nakuru and Nyandarua counties ranked second and third, respectively.

The high performance of Nandi County was attributed to the fact that most association members were only required to be duly registered as members of the association with business permit to acquire a worksite. On average, time taken to complete acquiring a worksite was reported to be 11-30 days, thus enabling MSEs to quickly register and start operations. The official cost, which included onetime payment, annual payment, and survey fees needed to acquire a worksite was about Ksh 1,800 compared to an average of Ksh 50,000 across counties that MSEs paid to acquire worksites.

Of MSEs who reported their inability to access worksites, about 25 per cent indicated lack of land allocation to set up worksites, 20.20 per cent indicated limited financing available to develop the worksites, while 18.24 per cent indicated “no need” for worksites due to the nature of their businesses. Other significant challenges reported included limited land for worksite development (12.16%), long procedures involved in obtaining a worksite (4.72%) political interference (3.71%) and proximity of worksites being away from markets (3.37%). The least reported limitations included grabbing of association land by private developers’, inadequate power supply to the worksite, unavailability of utilities such as water, sewer and drainage, corruption involved in obtaining workspaces, and expensive rates charged for the worksite. About 2.02 per cent expressed their comfort in operating without designated worksites.

Notably, not all worksites are legally allocated as 15.86 per cent of the respondents indicated that they were in illegal worksites and live in fear of demolitions that could happen any time. As at the time of the survey, about 30 per cent of MSEs operating in illegal worksites indicated they were facing imminent threat of

demolition and did not have alternative worksites that they could re-establish their business. Largely, the MSEs were informed of impending demolitions even though 36 per cent indicated that they rarely receive notifications and, as such, the demolitions contribute to a huge loss of their investment in their business.

3.2.2 Access to common manufacturing facilities

Common manufacturing facility has been one of the key interventions that has enhanced the way MSEs do business and improve the quality and competitiveness of their products. Common manufacturing facilities provide modern production technology at affordable costs to MSEs requiring technology in their production, thus improving their competitive edge. The index calibrates the access to common manufacturing facility by assessing the number of procedures undertaken to benefit from common manufacturing facilities, time taken, distance to facilities, types of facilities available, and official costs involved.

The average score across all the counties was 18.24 compared to 10.53 in 2019. Isiolo County emerged top, scoring 68.80, followed by Lamu and Taita Taveta counties with a score of 56.11 and 41.39, respectively. Nairobi County topped in 2019 with a score of 45.37, with Embu County scoring the least at 1.60. Isiolo County indicated that there are no procedures, with everyone allowed to access the common manufacturing facilities. Distance taken to worksites was relatively low, averaging less than 1 km and time taken to access a common manufacturing facility being averagely less than 10 minutes.

Only 24 per cent of the respondents indicated that their association members had full access to common manufacturing facility, while 9 per cent had partial access to common manufacturing facilities. About 18.39 per cent indicated that they did not find it important to use a common manufacturing facility while 14.61 per cent indicated that they were involved in unrelated economic activities that did not necessitate access to common manufacturing facilities.

Of the bulk of the MSEs that did not have access to common manufacturing facilities, numerous constrains were cited, with majority citing non-availability of common manufacturing facilities (25.28%) and the costs involved in accessing common manufacturing facility (17.40%). Other factors contributing to lack of access included inadequate workshops (4.76%), too many procedures to utilize the manufacturing facility (4.26%), outdated machines (3.28%) and lack of electricity connected to the facilities (2.79%). About 6.40 per cent indicated that they are not even aware that common manufacturing facilities exist, while 1.97 per cent cited their preference to use personal tools and equipment over accessing a common manufacturing facility.

Regarding the procedures needed for members to have access to common manufacturing facility, the documentation required largely varied from counties and sectors of the respondents. About, 14.49 per cent indicated that no document was needed at all to access worksites. For those who were needed to provide documentation, some of the documents included membership association identity card/letter, business permit, business registration certificate, national identity card, signed agreement for facility usage, and proof of payment for the usage of the facility. About 73.1 per cent indicated that only one document, mostly the identification card, was required.

In addition to non-availability of common manufacturing facilities, there are other reasons why MSEs are not interested in engaging in manufacturing activities. About 44.95 per cent indicated lack of resources in terms of cash flows needed to start and run a manufacturing facility. Lack of required expertise and unhealthy competition from large firms contributed to 21 per cent and 15.95 per cent, respectively. About 15.69 per cent cited inadequate trained workforce needed to engage in manufacturing activities. The least of the reasons cited were lack of ready market and lack of proper machinery at 1.06 per cent and 1.32 per cent, respectively.

3.2.3 Electricity connection

Electricity connection is a strategic driver to MSEs performance as unreliable power supply has debilitating effects on operations. The index assessed electricity connectivity in terms of procedures undertaken to access electricity within a worksite, official cost of connecting electricity to worksite, time taken to be connected, average electricity bill amounts payable monthly, number of power outages experienced in a month, and number of times for monitoring electricity supply.

About 65.20 per cent indicated that their worksites were connected to electricity or solar grid. Isiolo and Baringo counties ranked high with a score of 59.24 and 55.55, respectively. Other counties that scored high are Taita Taveta at 51.03 and Laikipia at 50.35. Kajiado, Kitui and Garissa counties scored the lowest at 9.62, 8.97, and 6.64, respectively. Kisumu County emerged top in 2019 with a score of 80.04. Isiolo County reported an average of 4-step procedure needed to obtain electricity connection at the worksite, which includes official application with utility provider, payment of the connection fees, worksite assessment by the utility company and installation of electricity at the worksite. The official cost of connecting electricity is less than Ksh 20,000, with average monthly cost being

less than Ksh 500 and frequency of electricity shortage being less than five times a month, with the duration of outage lasting less than 12 hours a day.

Some of the challenges cited by respondents who were not connected to electricity included high cost of installation (18%), lack of designated workspace (16%), too many procedures involved to connect (10%), inability to pay electricity bills (6.46%) and long distance to the grid (6.46%). Other respondents indicated that they used streetlights for lighting (11.38%) while others indicated that their nature of business did not require them to have electricity (11.38%). Respondents in illegal worksites who cannot qualify to install electricity and can also not develop the worksites were about 5.23 per cent.

A number of documents including the national identity card, allotment letter, title deed or lease agreement, association identity card/ letter, business permit, a copy of PIN certificate, wiring certificate, and payment receipt were required before electricity connection. About 60 per cent indicated that they required about 5 documents while 20 per cent indicated they needed about 2 documents to be connected to electricity. About 60.8 per cent still used metered electricity that made payments per month while the rest had migrated to token billing system.

Most respondents indicated high frequency of power outages lasting an average of about 12 hrs per day. Only 19.06 per cent indicated notification of power outages through print media and social media. However, a few respondents, about 19.90 per cent, indicated getting information about change in tariffs of electricity and, therefore, most did not feel that the electricity provider is transparent with the charges. About 31.61 per cent indicated the availability of utility providers in monitoring the supply of electricity to address any other electricity related concerns.

3.2.4 Water connection

Of all the respondents, only 55.31 per cent indicated they have designated areas for waste collection and disposal. To benefit from waste management services, about 23 per cent of respondents indicated that no document was needed while about 40 per cent indicated that they were required to have a county or business permit. The waste management index score composed of procedures undertaken to benefit from waste management systems, time taken to complete procedures, costs involved to complete 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. Waste management at the worksites improved from a score of 17.07 in 2019 to

23.04, implying improved efforts in this area. Elgeyo Marakwet County came first with a score of 55.34. Nandi, Laikipia and Nairobi counties also performed well with a score of 55.21, 54.79, and 53.11, respectively. Elgeyo Marakwet County reported to one procedural requirement undertaken to benefit from waste management system, which includes payment of waste management to the County Government. The payment also serves as the only documentation required to access waste management services. On average, the official cost of waste collection and the monthly amount needed to benefit from the services is less than Ksh 1,000. The designated waste collection points are, on average, less than 500 metres. The respondents further indicated that the waste is collected weekly from the worksites.

3.2.5 Public toilets

Of all the respondents, about 61.8 per cent had access to public toilets. The condition of the toilets was rated above average apart from 5.9 per cent who rated them as in very poor condition. The index on access to public toilet constituted distance taken to access the nearest public toilet, time taken to the nearest public toilet and cost involved per person. The average score across all counties on public toilets was 44.67 compared to 20.76 in 2019, implying improvement of sanitation facilities at the worksites.

Isiolo County ranked first with a score of 71.67, followed by Nandi County at 70.07 and Nyeri County at 70.03. Nyamira, Narok, and Marsabit counties scored the least. In 2019, Kisumu County had the highest score of 48.44 while Wajir scored the least at 3.66. Isiolo County reported to have presence of public toilets to be averagely within 500 meters and costing between Ksh 5 to Ksh10 shillings to access.

3.2.6 Waste management

Of all the respondents, only 55.31 per cent indicated they have designated areas for waste collection and disposal. To benefit from waste management services, about 23 per cent of respondents indicated that no document was needed while about 40 per cent indicated that they were required to have a county or business permit. The waste management index score composed of procedures undertaken to benefit from waste management systems, time taken to complete procedures, costs involved to complete 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.

Waste management at the worksites improved from a score of 17.07 in 2019 to 23.04, implying improved efforts in this area. Elgeyo Marakwet County came first with a score of 55.34. Nandi, Laikipia and Nairobi counties also performed well with scores of 55.21, 54.79, and 53.11, respectively. Elgeyo Marakwet County reported to one procedural requirement undertaken to benefit from waste management system, which includes payment of waste management to the County Government. The payment also serves as the only documentation required to access waste management services. On average, the official cost of waste collection and the monthly amount needed to benefit from the service is less than Ksh 1,000. The designated waste collection points are, on average, less than 500 meters. The respondents further indicated that the waste is collected weekly from the worksites.

3.2.7 Internet connection

Internet connection to MSEs worksites and workplaces is critical for accessing national, regional, and international markets, through digitalization and adoption of e-commerce for business continuity and resilience in the face of shocks. The index assessed internet connectivity in terms of proportion of MSEs accessing Internet, procedures undertaken to access Internet, average monthly costs of using Internet, duration of Internet outages, frequency of Internet outage, average number of times to monitor Internet supply, and the official cost of connection. The average score for Internet connection was 3.94, the lowest across all indicators related to infrastructure supporting worksites. Vihiga County ranked first at 12.64, followed by Busia, Marsabit and Narok counties. In Vihiga County, about 20%-40% of the MSEs reported to use individual Internet connection, which could be phones or modems costing less than Ksh 1,000 per month. On average, Internet downtime was reported to beless less frequent, lasting less than an 1 hour per occurrence.

Generally, the low broad band Internet connection to the worksites across counties is attributed to high connectivity charges (17.28%), lack of Internet infrastructure to support the connection (17.39%), poor network connection to support internet connectivity (9.5%) and lack of awareness and importance of Internet (10.10%). About 45 per cent of the respondents indicated they used phone/modem Internet. Notably, for the worksites with Internet connected with bandwith, most MSEs indicated fair charges but with low reliability.

3.3 Market Environment

The factors considered in the market environment for MSEs were Access to Government Procurement Opportunities (AGPO); ease of access to road infrastructure; access to market; unfair competition; quality of support infrastructure; and trade participation. As shown in Table 7, access to AGPO on average scored the least at 8.46 with access to markets scoring the highest at 71.17. In 2019, access to AGPO also scored the least with an average score of 7.80.

Table 7: Scores for market environment in MSE sector at the county level

Counties	AGPO	Ease of access to road infrastructure	Access to market	Unfair competition	Quality of support infrastructure	Trade Participation	Average
Baringo	3.23	84.57	81.22	17.20	42.39	7.64	39.37
Bomet	11.08	73.62	79.35	23.45	48.31	10.21	41.00
Bungoma	6.99	68.80	78.43	25.80	45.61	11.35	39.50
Busia	11.21	63.07	67.80	39.09	41.60	18.46	40.20
Elgeyo Marakwet	5.54	78.57	78.36	7.82	47.19	16.51	39.00
Embu	2.83	77.19	70.31	45.58	40.70	10.87	41.24
Garissa	8.44	2.55	76.44	9.56	42.32	4.78	24.01
Homa Bay	2.65	81.31	77.66	41.46	44.78	1.69	41.59
Isiolo	40.85	57.33	73.10	34.40	24.57	28.67	43.15
Kajiado	12.26	59.63	50.64	28.67	40.16	5.10	32.74
Kakamega	10.02	65.98	74.15	32.11	39.52	6.05	37.97
Kericho	5.66	74.10	75.01	8.60	44.23	10.27	36.31
Kiambu	1.43	82.22	71.84	40.05	47.00	12.03	42.43
Kilifi	30.28	86.00	92.69	10.75	38.78	-	43.08
Kirinyaga	2.15	73.75	65.15	35.26	48.53	13.62	39.74
Kisii	7.41	80.60	71.71	35.71	40.65	12.19	41.38
Kisumu	8.61	74.06	69.76	48.99	41.70	9.41	42.09
Kitui	10.43	69.76	74.96	49.69	51.19	10.09	44.35
Kwale	23.49	72.14	64.77	38.22	34.81	9.82	40.54
Laikipia	6.57	65.55	57.91	19.49	52.42	11.63	35.59
Lamu	-	53.03	57.81	86.00	24.57	14.33	39.29
Machakos	13.33	75.51	62.94	26.25	47.27	9.93	39.21
Makueni	6.29	77.31	68.05	29.03	49.96	9.11	39.96
Mandera	-	52.85	58.05	32.25	39.54	-	30.45
Marsabit	8.31	59.05	73.48	48.16	17.20	3.82	35.01

Counties	AGPO	Ease of access to road infrastructure	Access to market	Unfair competition	Quality of support infrastructure	Trade Participation	Average
Meru	6.39	60.87	40.61	32.38	52.79	11.94	34.16
Migori	4.81	75.51	68.41	39.93	32.14	4.95	37.62
Mombasa	9.54	70.11	76.78	42.92	58.96	12.92	45.20
Murang'a	4.83	73.85	64.93	47.50	47.39	8.42	41.15
Nairobi	2.42	96.80	78.99	43.37	52.53	10.61	47.45
Nakuru	6.03	74.94	72.47	30.71	44.65	9.38	39.70
Nandi	-	86.00	83.50	17.20	54.60	11.68	42.16
Narok	-	48.73	67.54	21.89	31.27	8.25	29.61
Nyamira	6.47	76.13	77.00	9.56	31.44	6.37	34.49
Nyandarua	3.79	66.47	72.07	34.83	44.97	7.11	38.21
Nyeri	4.33	79.04	73.10	36.37	52.21	10.17	42.54
Samburu	11.01	43.82	35.90	9.83	21.50	2.73	20.80
Siaya	18.04	72.94	73.84	27.95	36.86	13.54	40.53
Taita Taveta	17.68	78.59	84.09	40.40	41.98	6.37	44.85
Tana River	18.87	76.44	73.90	28.67	24.57	21.50	40.66
Tharaka Nithi	2.49	54.65	63.96	43.00	46.07	13.74	37.32
Trans Nzoia	21.50	72.62	81.22	20.07	39.93	11.15	41.08
Turkana	9.56	75.97	79.15	-	39.93	12.74	36.22
Uasin Gishu	3.16	79.00	80.07	10.12	54.90	14.47	40.29
Vihiga	7.88	82.70	78.64	29.24	37.16	13.86	41.58
Wajir	-	75.56	66.34	56.51	34.22	6.14	39.80
West Pokot	-	86.00	80.81	-	54.12	-	36.82
Average	**8.46**	**70.54**	**71.17**	**30.55**	**41.90**	**9.91**	**38.75**

Source: Authors calculations

Note: A dash (-) denotes not assessed.

3.3.1 Access to Government Procurement Opportunities

Of all the respondents, about 57.20 per cent indicated that they were aware of AGPO. However, only 35.00 per cent of them knew the documents needed for pre-qualification. The documentation needed include National ID, business registration certificate, KRA pin certificate, tax compliance certificate, CR12 for a limited company and a partnership deed for a partnership business. Only 3.78 per cent indicated that they had been trained on accessing government tenders, with

majority of the respondents indicating that they learnt about AGPO by word of mouth while others learnt through media, including TV and radio.

To assess the extent of uptake of AGPO, the index took into consideration the proportion of MSEs prequalified, the procedures undertaken for prequalification into AGPO, time taken to be considered for government contracts, and total official cost involved in applying for government contracts.

Isiolo County had the highest score of 40.85 on access to AGPO. Kilifi and Kwale counties followed with scores of 30.28 and 23.49, respectively. Lamu, Mandera, Nandi, Narok, Wajir, and West Pokot counties reported very limited or no access to AGPO. In 2019, Mombasa County scored the highest with access to AGPO at 34.52 with Kitui County scoring the least at 2.46. The relatively low score implies continued low involvement of MSEs in government contracts. The best county, Isiolo, reported to have only four procedures required to be prequalified to AGPO, with less than 3 months needed to pre-qualify.

Regarding challenges cited by MSEs to enable them to prequalify for AGPO, about 22.9 per cent cited high corruption levels, 22.34 per cent cited high cost involved in processing the documentation, 21 per cent cited numerous tedious procedures that were difficult to understand, 13.82 per cent cited lack of access to finances, 10.10 per cent cited lack of information and 9.04 per cent cited high bureaucracies that were hard to bypass. Moreover, majority of MSEs indicated that they did not proceed past pre-qualification stage. About 65.21 per cent indicated they never received a response on why they could not proceed with application, 17.39 per cent indicated poor and inadequate documentation while 17.39 per cent indicated the failure to give bribe as a reason why they never proceed to the rest of tendering stages.

3.3.2 Ease of access to road infrastructure

The road infrastructure index score is composed of distance taken to access the nearest tarmac road, time taken to the nearest tarmac road, and the cost involved to reach the nearest tarmac road. The three top counties on road infrastructure were Nairobi, Kilifi, Nandi and West Poko with scores of 96.80, 86.00, 86.00 and 86.00, respectively. The lowest scores on this indicator were 2.55 for Garissa County, 43.82 for Samburu County and 48.73 for Narok County. Nairobi County topped in 2019 with a score of 70.86 against an average score of 31.03, with Isiolo County scoring the least at 7.89. On average, in Nairobi, it takes less than 1 km at a cost of less than Ksh 100 to get to the nearest tarmac road. Generally, the respondents expressed their concern over poor roads for worksites accessibility.

About 51 per cent of the respondents indicated that the roads leading to worksites were poor all through the year while 54 per cent indicated that during rainy season, the roads to the worksites were impassable.

Table 8: Quality of road infrastructure score in Kenya and aspirator countries

Country	Score (Rank)
South Korea	81.6 (9)
Singapore	90.9 (1)
China	59.7 (45)
Malaysia	72.4 (19)
India	58.6 (48)
South Africa	59.1 (47)
Kenya	**51.9 (64)**

Source: World Economic Forum (2019)

3.3.3 Access to markets

Access to markets for MSEs is a crucial factor determining their performance and survival rate. The access to market index score consisted of assessment of the average distance to the nearest market where MSEs sell products and services, time taken to nearest market and average county levies imposed on traders per month. The average score for access to market by MSEs was 71.17 compared to 30.87 in 2019. Kilifi County had the highest score of 92.69. Taita Taveta and Nandi counties were second and third, respectively, scoring 84.09 and 83.50. Samburu County scored the lowest at 35.90, followed by Meru and Kajiado counties at 40.61 and 50.64, respectively. In Kilifi County, it takes less than 20 minutes to get to the market, with the cost of access to market being less than Ksh 200. Nairobi County had scored the highest at 67.65 while Isiolo scored the lowest at 2.5, in 2019.

The continued existence of challenges in accessing markets have resulted to MSEs using middlemen who can deliver goods to the market with ease and affordability. About 40.32 per cent indicated that they sold their products to middlemen, often at lower prices than they could fetch with no go-between. The MSEs products have improved over time with about 28.98 per cent indicating to have had high rated products compared to 1.42 per cent of respondents who indicated low quality products that they delivered to the market.

3.3.4 Unfair competition

Unfair competition negatively affects MSEs' growth. This indicator assessed the existence of unhealthy anti-competitive and unfair trade practices among MSEs in the counties. Such practices manifest through contract enforcement, counterfeiting, dumping (substandard goods) and misrepresentation (through weight, price, ingredient). A low score indicates existence of these practices. Lamu County emerged top with a score of 86.00 against an average score of 30.55. Wajir County came second at 56.51 while Kitui County was third with a score of 49.69. Garissa, Nyamira, Kericho, and Elgeyo Marakwet counties scored the lowest on this indicator. In 2019, Kakamega County was ranked highest on this indicator with a score of 21.15 while Siaya County was ranked lowest with a score of 1.32.

In Lamu County, the respondents reported, on average, to have less than two unfair market practices, including misrepresentation and false advertising practices. Of the total respondents, about 43.95 per cent of the MSEs indicated that they had faced unfair business practice in the recent past. On frequency of unfair business practices, misrepresentation and dumping of sub-standard goods registered the highest number of unfair practices largely practiced, at 31.14 per cent and 19.35 per cent, respectively. The awareness on trade malpractices was high with about 48.30 per cent of MSEs reporting to be aware of unfair practices happening in the market.

3.3.5 Quality of support infrastructure

The condition of physical markets relating to roads within and nearby, availability of water services and drainage, security, waste management facilities, heath facilities, public toilets and sewerage, and county market officials are critical in supporting the market environment for MSEs. Mombasa County ranked best on this indicator with a score of 58.96.Uasin Gishu and Nandi counties were second and third at 54.90 and 54.60, respectively.

3.3.6 Trade participation

The trade participation index score included fairness of taxes and permits payable to the neighbouring counties, various approaches used to promote county trade, and approaches used to promote international trade. These measures are important in facilitating trade for MSEs. Isiolo County ranked best with a score of 28.67, followed by Tana River County and Busia County at 21.50 and 18.46, respectively. The average score across counties was 9.91, an indication of low

facilitation of MSEs participation in trade. Majority of MSEs rated the approaches used to promote both intercounty and international trade as effective with fair taxes charged especially for the intercounty trade. About 42.35 per cent of the respondents indicated to have participated in intercounty trade compared to 14.41 per cent who had participated in international trade.

3.4 Financial Inclusion

Financial inclusion in the MSEs sector is crucial in improving firm performance and growth, and strengthening gender equality and social inclusion (GESI). Access to credit, for example, can enhance investments, market share and products diversification. The indicators included in this broad area were access to savings and credit facilities, financial innovations and fintechs, and credit guarantee scheme. Financial innovations and fintech was best ranked with an average score of 30.44. Credit guarantee scheme came second while access to savings and credit facilities had the least score of 7.93, as indicated in the Table 9.

Table 9: Scores for financial inclusion in the MSE sector at the county level

Counties	Access to savings and credit facilities,	Financial innovations and Fintech	Credit Guarantee scheme	Average
Baringo	6.45	33.23	13.62	17.76
Bomet	-	39.09	25.08	21.39
Bungoma	2.15	33.15	21.50	18.93
Busia	36.16	25.66	23.45	28.42
Elgeyo Marakwet	2.93	37.30	23.45	21.23
Embu	4.30	42.23	28.13	24.89
Garissa	4.78	6.99	14.33	8.70
Homa Bay	8.23	47.07	11.81	22.37
Isiolo	53.75	31.11	39.42	41.43
Kajiado	7.88	31.23	23.89	21.00
Kakamega	13.98	22.49	23.53	20.00
Kericho	2.15	34.61	28.31	21.69
Kiambu	14.79	38.68	20.74	24.73
Kilifi	2.69	39.31	32.25	24.75
Kirinyaga	3.23	36.08	6.99	15.43
Kisii	4.20	44.75	13.36	20.77
Kisumu	28.99	22.36	22.15	24.50
Kitui	3.58	1.09	17.52	7.40

Counties	Access to savings and credit facilities,	Financial innovations and Fintech	Credit Guarantee scheme	Average
Kwale	1.19	38.02	9.56	16.26
Laikipia	7.88	45.70	10.27	21.29
Lamu	10.75	4.89	-	5.21
Machakos	1.70	38.71	16.79	19.06
Makueni	0.67	34.51	20.16	18.45
Mandera	1.34	35.94	-	12.43
Marsabit	4.30	7.43	10.03	7.25
Meru	7.59	4.25	1.69	4.51
Migori	1.92	40.02	13.44	18.46
Mombasa	0.89	35.89	17.88	18.22
Murang'a	3.58	42.40	37.37	27.79
Nairobi	5.87	50.01	30.34	28.74
Nakuru	20.35	24.00	14.97	19.77
Nandi	4.78	30.20	32.25	22.41
Narok	-	40.76	5.86	15.54
Nyamira	-	45.46	8.76	18.07
Nyandarua	5.64	36.96	7.17	16.59
Nyeri	7.06	37.69	9.42	18.06
Samburu	18.43	6.70	7.17	10.77
Siaya	20.31	25.45	5.97	17.24
Taita Taveta	3.58	21.91	8.96	11.48
Tana River	10.75	5.70	28.67	15.04
Tharaka Nithi	11.42	9.43	9.63	10.16
Trans Nzoia	1.79	36.78	2.39	13.65
Turkana	-	33.55	15.53	16.36
Uasin Gishu	0.63	31.45	17.92	16.67
Vihiga	18.28	21.78	15.77	18.61
Wajir	-	42.51	22.01	21.51
West Pokot	1.54	36.30	15.36	17.73
Average	**7.93**	**30.44**	**16.70**	**18.36**

Source: Authors calculations

Note: A dash denotes not assessed

3.4.1 Access to savings and credit facilities

Access to savings and credit facilities was assessed using the number of institutions that MSEs use to access saving and credit facilities. Isiolo County ranked first scoring 53.75, followed by Busia and Kisumu counties with 36.16 and 28.99, respectively. About 83.55 per cent of the respondents indicated to have saved with a formal financial institution. The reasons for not saving included lack of enough funds to save (30.00), not interested to save (13.63%), feel safe to put money at home compared to a financial institution (13.63%) while 9.09 per cent indicated that they do not understand how to open a savings account.

On access to credit facilities, about 53.56 per cent had sought credit from a formal financial institution in the last one year. The cited reasons for not applying for credit included fear of the unknown (29.02%), high interest rates (28.25%), lack of collateral (19.36%), a lot of procedures involved (16.19%) and lack of awareness (15.6%). About 13.65 per cent of the respondents indicated that they did not need credit while 16 per cent indicated that religion forbids them from accessing credit. About 5 per cent of respondents could not get credit due to CRB listing.

Largely, MSEs were extended less credit than applied for, with about 69.42 per cent indicating they received a credit of amount between Ksh 10,001 and Kes 200,000. Credit obtained was majorly used to support daily operations. The reasons for decline of credit varied from no reason given (31.91%), inadequate credit history (21.27%), lack of collateral (12.76%), inadequate collateral (8.51%), poor documentation (8.51%), reduced lending preference (8.51%) and negative credit history (4.25%).

3.4.2 Financial innovations and Fintech

Financial innovations are important in easing access to financial services by MSEs, exploiting the opportunities of Kenya's pioneering work in financial technology (FinTech). Under financial innovations, the understanding of financial innovations and average use of financial innovations (M-Pesa; M-Shwari; M-akiba and Credit Reference Bureaus) by MSEs was assessed. While about 35 per cent highly and moderately understood about financial innovations, the usage of mobile banking and the usage of Mshwari, M-Akiba and other applications (apps)-based mobile platforms was high among MSEs.

The main reasons cited by the respondents for the use include paying bills/ suppliers (80.2%), to grow borrowing limit (27.94%), to pay loans (26.63%) and to make daily purchase (84.42%). About 58 per cent of respondents indicated increased use of mobile money during COVID-19 while 2.7 per cent indicated no

change on use of mobile money. Some of the reasons that led to mobile money usage included the increased use of till/Pay bill numbers/*Pochi la biashara* (76.63%), reduction in mobile money transactions (46.98%), the government appeal to transact in cashless mode (76.88%), the increase of online business (31.90%) and the demand to pay for products and services in a cashless mode (57.03%). Nairobi County ranked first in this indicator with a score of 50.01, with Kitui County scoring the least at 1.09.

3.4.3 Credit guarantee scheme

Credit guarantee scheme, a mechanism to reduce risks associated with lending to MSEs was launched in 2020 in Kenya. Thus, it's a new financial product meant to enhance credit access to MSEs. In this indicator, awareness of credit guarantee scheme and its likelihood of use were assessed. Isiolo, Murang'a, Kilifi and Nandi performed better on this indicator. There was little understanding of credit guarantee scheme among the MSEs with only 25.90 per cent stating being aware of the scheme. Even for those aware, about 25 per cent did not fully comprehend it while 58 per cent were confident that it would improve access of credit to MSEs.

3.5 Technical Capacity

The indicators comprising technical capacity for MSEs training (capacity building) include innovations, patenting, ability to cope with new technology, knowledge and skills gap, MSEs survival rate, and access to incubation services. The scores for these indicators are shown in Table 10.

Table 10: Scores for technical capacity in MSE sector at the county level

Counties	Training (capacity building) for MSEs	Innovations	Patenting	Coping with new technology	Knowledge and skills gap	MSEs survival rate	Access to incubation services	Average
Baringo	-	1.14	0.30	7.88	50.48	50.74	25.80	19.48
Bomet	15.74	-	0.04	6.52	53.85	38.01	7.30	17.35
Bungoma	16.85	-	0.12	6.45	73.89	29.15	26.66	21.87
Busia	25.90	15.45	0.71	25.73	30.06	53.05	13.55	23.49
Elgeyo Marakwet	9.18	-	0.40	3.58	46.49	84.71	-	20.62
Embu	18.11	1.99	0.33	27.95	49.71	54.88	4.80	22.54
Garissa	5.75	0.53	0.49	4.78	41.52	34.32	11.08	14.07
Homabay	17.48	0.43	0.19	8.44	31.49	59.24	17.66	19.27

Counties	Training (capacity building) for MSEs	Innova-tions	Patenting	Coping with new technol-ogy	Knowl-edge and skills gap	MSEs survival rate	Access to incuba-tion services	Average
Isiolo	30.76	-	1.63	28.67	41.52	-	-	14.65
Kajiado	21.13	6.41	6.47	49.21	65.01	35.31	-	26.22
Kakamega	8.44	5.62	0.31	23.53	28.24	59.21	7.61	19.00
Kericho	13.37	-	0.53	5.02	49.75	67.52	-	19.46
Kiambu	15.83	0.32	0.36	31.95	56.04	59.71	11.56	25.11
Kilifi	9.92	1.80	0.70	23.74	59.41	21.46	7.15	17.74
Kirinyaga	17.55	1.42	0.57	11.29	54.36	58.24	0.86	20.61
Kisii	16.05	-	0.12	12.71	40.84	47.00	2.49	17.03
Kisumu	14.61	4.16	0.66	27.15	42.73	66.68	7.12	23.30
Kitui	28.91	-	-	-	41.52	10.75	8.92	12.87
Kwale	10.20	7.56	1.42	36.23	67.99	64.92	13.14	28.78
Laikipia	19.99	2.46	0.95	16.72	43.45	62.16	20.89	23.80
Lamu	-	-	-	-	41.52	-	-	5.93
Machakos	16.82	0.31	0.28	25.27	60.86	31.40	-	19.28
Makueni	13.88	1.06	0.39	29.56	60.35	36.51	-	20.25
Mandera	21.05	-	-	-	48.56	62.56	-	18.88
Marsabit	21.80	-	1.25	8.60	47.49	33.11	-	16.04
Meru	6.22	-	-	5.48	42.45	9.58	8.40	10.30
Migori	8.73	3.42	0.80	22.27	38.10	38.82	12.39	17.79
Mombasa	17.77	3.11	1.45	40.22	71.29	27.53	-	23.05
Murang'a	13.03	2.84	0.45	17.75	40.62	56.42	-	18.73
Nairobi	29.56	1.06	1.11	30.88	47.25	41.30	10.28	23.07
Nakuru	16.43	0.93	0.14	35.83	35.44	42.41	2.15	19.05
Nandi	14.58	-	1.31	18.31	60.72	47.10	26.86	24.13
Narok	7.40	-	0.06	7.17	40.59	53.49	-	15.53
Nyamira	14.03	0.43	0.19	3.98	47.81	50.03	8.92	17.91
Nyandarua	11.73	1.15	0.46	12.81	57.90	38.12	18.66	20.12
Nyeri	12.69	0.99	0.39	8.80	64.13	38.72	4.26	18.57
Samburu	13.31	-	0.29	5.63	45.79	12.35	13.92	13.04
Siaya	5.23	2.13	0.79	28.27	39.66	55.80	18.23	21.44
Taita Taveta	13.75	4.15	1.06	40.61	56.82	42.57	-	22.71
Tana River	-	-	-	-	41.52	57.04	-	14.08
Tharaka Nthi	11.20	-	-	-	43.51	46.86	2.99	14.94

Counties	Training (capacity building) for MSEs	Innova-tions	Patenting	Coping with new technol-ogy	Knowl-edge and skills gap	MSEs survival rate	Access to incuba-tion services	Average
Transnzoia	15.20	-	-	-	73.51	71.20	-	22.84
Turkana	17.66	-	-	4.78	79.87	70.21	-	24.65
Uasin Gishu	14.29	-	0.31	8.22	57.86	60.37	7.76	21.26
Vihiga	14.34	3.91	0.73	44.43	34.44	51.10	32.30	25.89
Wajir	7.34	2.45	1.53	28.15	53.33	48.16	21.57	23.22
West Pokot	9.36	-	-	-	55.24	46.31	21.57	18.92
Average	**14.11**	**1.64**	**0.62**	**16.69**	**50.11**	**45.24**	**8.44**	**19.55**

Source: Authors calculations

Note: A dash (-) denotes not assessed

3.5.1 Training (capacity building)

This indicator was assessed on number of MSEs trained, training areas, training duration, and costs involved. Isiolo county emerged the best scoring 30.76, followed by Nairobi at 29.56 and Kitui at 28.91. Baringo, Lamu and Tana River counties reported to have taken minimal or no training. In 2019, Kisumu County scored the highest at 56.28.

In assessing the extent to which MSEs participated, about 50.66 per cent indicated that they had undertaken trainings in the last three years in financial management (25.69%), market access (15.53%), technical skills (24.92%), climate change (2.92%), post-harvest management (5.07%), business advisory (17.23%) and technical skills (8.61%). An equal number of both genders participated in the training, with the male participants being about 55.73 per cent while female participants being 44.26 per cent, hence contributing to realization of GESI. Public institutions offered most of the trainings at 64.64 per cent, followed by private organizations at 22.03 per cent, NGOs at 11.6 per cent and religious organizations at 1.70 per cent. Specifically, National Government State departments accounted for 26.79 per cent, county government 16.35 per cent, government parastatal such as KIRDI, KIPI, MSEA 14.31 per cent, training institutes 11.86 per cent and Kenya National of Juakali 9.81 per cent. Development partners, banks, trade organizations, universities, religious organizations, and self-training accounted for the rest of 19.22 per cent.

The reasons for not receiving training were non-availability of trainings (43.47%), lack of apprenticeship programme for enhancing their already available technical skills (20.71%), no relevant courses for the trainings available (19.94%), lack of training

needs assessments (13.29%), lack of monitoring and evaluation of effectiveness of training (6.13%) while 2.30 per cent indicated "no need" for training.

3.5.2 Innovation

The innovation index score was computed using the proportion of MSEs to the total MSEs' membership who have innovated in the last three years. About 66.39 per cent of the MSEs had innovated a product compared to 23.77 per cent in process/ service innovation and 9.83 per cent in market innovation. The average score for innovation was 1.64 compared to 0.5 in 2019. This implies that the innovating rate for MSEs remains low. Siaya County was best ranked on innovation (2.49), among the 36 counties that were assessed on the indicator. In 2022, Busia County ranked best with a score of 15.45 followed by Kwale County at 7.56 and Kajiado County at 6.51.

To cope with the COVID-19 pandemic, a few MSEs undertook various innovations of doing business to survive the harsh economic times. These included selling goods and services online (17.90%) and changing business model to produce goods on demand (20.52%). About 6.4 per cent of MSEs underwent additional training on COVID-19 issues to understand some of the innovations that they could engage in for survival during the downtime.

Table 11: Innovation capability score for Kenya and selected aspirator countries

Country	Score (Rank)
South Korea	79.1 (6)
Singapore	75.2 (13)
China	64.8 (24)
Malaysia	55.0 (30)
India	50.9 (35)
South Africa	45.2 (46)
Kenya	36.3 (78)

Source: World Economic Forum (2019)

3.5.3 Patenting

The patenting index score was computed by assessing the proportion of innovated MSEs who had been able to patent their innovations. The average score on patenting was 0.62 compared to 0.09 in 2019. Among the reasons provided by MSEs for not patenting included lack of information (52.76%), high costs of registering (21.10%),

cumbersome procedures involved (19.09%) and inaccessibility to relevant offices concerned with patenting (7.03%).

3.5.4 Coping with new technology

The indicator of coping with new technology focused on understanding of technological and innovation trends, and adaption of new technology. The average score was 16.69, an indication that MSEs have a challenge of coping with new technology, hence the low innovations undertaken by the sector. Kajiado, Vihiga, Taita Taveta and Mombasa counties led on coping with new technology.

On coping with change brought by technology, only 26.63 per cent indicated that they invested in the technology while 10.91 per cent indicated that they collaborated with other stakeholders to benefit from the new technology while 7.27 per cent indicated that they stuck to old and affordable technology. Some of the challenges cited in coping with new technology included high cost of technology (27.65%), lack of incentive to embrace new technology (14.40%), inadequate human resource capacity (11.06%), security vulnerabilities (5.24%) and challenges in regulation (1.74%).

3.5.5 Knowledge and skills gap

The knowledge and skills indicator score assessed technical skills gap and the cost involved to fulfill the technical gap. The average score of 50.11 on knowledge and skills implies that MSEs continue to face different skills gaps. Turkana, Bungoma and Trans Nzoia counties performed better in this indicator. Of the total respondents, 24.16 per cent indicated the lack of technical skills required to run their businesses. About 80.34 per cent indicated the need for skills upgrading in business administration, 74.96 per cent in financial management skills and 65.21 per cent in entrepreneurship skills. Most of the MSEs preferred in-county training (84.46%) with only 13.98 per cent stating that they would like to learn outside their counties.

3.5.6 MSEs survival rate

The MSEs survival rate beyond their third anniversary in business continues to be low. This negatively affects the efforts to realize the industrialization agenda in the country. This index score was measured using the proportion of MSEs that have closed shop as a percentage of total membership of MSEs. MSEs survival rate is

highest in Elgeyo Marakwet County with a score of 84.71, followed by Trans Nzoia County at 71.20 and Turkana County at 70.21. Nairobi County performed better on this indicator compared to other counties with a score of 24.97 in 2019. Some of the reasons cited for closure included lack of finances to sustain the business (51.96%), high cost of doing business (25.47%), poor management of enterprises (24.16%), high competition from large firms (15.72%), death of the entrepreneurs (12.37%), strict government regulations (9.31%) and personal reasons which accounted for 2.03 per cent. In the wake of COVID-19 lockdown, some counties were greatly affected. About 75.98 per cent of MSEs mentioned that they were significantly affected by the restrictions leading to closure of some businesses as follows: manufacturing (27.6%), agri-business (12.67%), trade (27.38%) and services (32.37%).

3.5.7 Access to incubation services

Incubation services are critical in technology transfer and enhancing innovations. This indicator assessed the procedures undertaken to benefit from incubation services, time taken to be enrolled, and official costs involved. On average, this indicator scored 8.44, implying that MSEs have bottlenecks in assessing incubation services. The counties that ranked best were Vihiga and Nandi . About 86.75 per cent indicated the lack of access of incubation services among their association members. Some of the reasons cited for lack of access included not within reach (67.17%), too many procedures (9.33%), lack of awareness (8.58%), expensive to afford (7.53%) while 7.37per cent indicated that they saw no need for accessing incubation services.

3.6 Governance and Regulatory Framework

The indicators included in the governance and regulatory framework were licensing, corruption and governance, crime and public security, self-regulation, and participation in policy and regulatory framework. As shown in Table 12, self-regulation ranked first with a score of 74.15. In 2019, self-regulation also ranked best. Crime and public security came second with a score of 70.80.

Table 12: Scores for governance and regulatory framework in MSE sector at the county level

Counties	Licensing and issuance of permits	Corruption and governance	Crime and public security	Self-regulation	Participation in policy and regulatory framework	Average
Baringo	45.86	43.00	81.51	67.53	-	47.58
Bomet	69.20	6.52	75.05	76.15	21.89	49.76
Bungoma	45.39	27.59	72.72	74.29	7.74	45.55
Busia	51.79	31.92	66.54	70.65	26.58	49.50
Elgeyo Marakwet	56.46	31.27	73.23	69.64	15.64	49.25
Embu	39.20	53.75	72.93	75.33	4.30	49.10
Garissa	62.61	8.76	63.28	74.32	15.29	44.85
Homa Bay	34.56	32.86	73.31	79.39	6.07	45.24
Isiolo	-	35.83	67.37	66.89	-	34.02
Kajiado	15.65	50.64	66.25	71.14	17.20	44.18
Kakamega	44.28	27.23	73.93	72.83	6.31	44.92
Kericho	61.16	18.63	77.69	77.72	17.20	50.48
Kiambu	35.58	52.79	74.61	84.31	15.53	52.56
Kilifi	48.66	37.63	70.41	62.51	15.05	46.85
Kirinyaga	54.64	50.88	66.79	73.42	6.88	50.52
Kisii	56.97	33.17	78.86	83.77	11.20	52.79
Kisumu	38.50	26.06	72.09	73.45	7.30	43.48
Kitui	39.36	-	65.61	75.03	5.73	37.15
Kwale	12.72	63.70	70.76	71.49	1.91	44.12
Laikipia	47.34	52.08	74.15	72.73	4.59	50.18
Lamu	83.08	28.67	61.63	66.89	-	48.05
Machakos	32.34	34.32	59.12	70.16	8.15	40.82
Makueni	30.20	43.90	54.74	66.49	7.53	40.57
Mandera	33.80	68.08	60.80	78.63	6.45	49.55
Marsabit	40.38	12.90	40.80	74.21	6.88	35.03
Meru	56.00	6.32	73.18	73.17	20.24	45.78
Migori	57.22	27.64	68.42	77.70	9.83	48.16

Counties	Licensing and issuance of permits	Corruption and governance	Crime and public security	Self-regulation	Participation in policy and regulatory framework	Average
Mombasa	44.93	44.71	60.61	75.25	5.72	46.24
Murang'a	29.28	49.48	72.10	75.31	14.74	48.18
Nairobi	29.84	53.43	89.36	86.87	12.26	54.35
Nakuru	24.25	13.31	69.62	77.35	12.90	39.49
Nandi	32.90	28.67	81.34	72.20	26.76	48.37
Narok	58.44	28.02	70.15	72.39	21.89	50.18
Nyamira	44.92	26.68	76.36	76.09	23.89	49.59
Nyandarua	31.91	51.78	72.11	74.65	12.47	48.59
Nyeri	60.85	44.43	80.42	73.17	13.27	54.43
Samburu	28.42	8.19	54.26	79.17	14.74	36.96
Siaya	30.15	49.37	77.61	78.57	5.73	48.29
Taita Taveta	13.24	54.94	67.37	71.14	2.87	41.91
Tana River	53.71	2.39	71.19	75.38	-	40.53
Tharaka Nithi	37.71	3.58	72.32	70.27	3.23	37.42
Trans Nzoia	61.58	52.56	83.85	71.67	20.07	57.94
Turkana	67.21	11.94	82.81	71.67	11.47	49.02
Uasin Gishu	42.34	26.14	77.82	72.60	4.05	44.59
Vihiga	41.91	15.77	70.42	72.30	10.32	42.15
Wajir	17.06	24.57	66.62	79.63	31.94	43.96
West Pokot	62.75	71.67	75.63	79.63	14.74	60.88
Average	**42.69**	**33.36**	**70.80**	**74.15**	**11.24**	**46.45**

Source: Authors calculations

Note: A dash (-) denotes not assessed

3.6.1 Licensing and issuance of permits

The licensing and issuance of permit index score was assessed by considering the cost of acquisition and renewals of licenses and permits, and the time taken. Licensing and permits charged to MSEs have implications on the cost of doing business. Lamu County ranked first with a score of 83.08, followed by Bomet at 69.20 and Turkana at 67.21. In 2019, Nairobi County ranked high with a score of 84.64. During the COVID-19 pandemic, the National and County Government offered tax waivers and reductions to help businesses cope. However, only about 18.19 per cent indicated to have benefitted from the waiver of daily market fee,

6.25 per cent benefitted from waiver of cess fee and 0.87per cent indicated to have benefitted from property fee.

3.6.2 Corruption and governance

The corruption and governance index score were computed using the average amount lost per person in and around the worksites and other areas of operations. Of all the respondents, 52.54 per cent indicated to have experienced corruption in the recent past. Overall, West Pokot County performed better with the highest score of 71.67. Mandera County had a score of 68.08 with Kwale County scoring 63.70. The areas mapped with corruption include workspace allocation (49.19%), business licencing (47.16%), illegal worksites by road (44.39%), grabbing association/land (44.25%), waste collection (42.94%), medical certificates (42.35%), accessing loans (42.06%), cover up for low quality goods/services (42.06%), embezzlement of association funds (41.92%), tender processing in worksites (41.63%) and to cover up sexual harassment (26.92%).

Table 13: Incidence of corruption score in Kenya and selected aspirator countries

Country	*Score (Rank)*
South Korea	57.0 (42)
Singapore	85.0 (3)
China	39.0 (75)
Malaysia	47.0 (55)
India	41.0 (66)
South Africa	43.0 (62)
Kenya	**27.0 (121)**

Source: World Economic Forum (2019)

3.6.3 Crime and public security

Crime and security concerns in and around worksites are a threat to the growth of MSEs. The crime and public security index score was calculated by assessing prevalence of crime around the worksites, average distance to the nearest police station, and time taken to the nearest police station. Nairobi County came first on this indicator, scoring 89.36, followed by Trans Nzoia County with 83.85 and Turkana County at 82.81. Kisumu County topped in 2019 with a score of 76.81. Regarding institutions where the MSEs reported the crime incidences, police stations topped the list by 81.66 per cent followed by area chief 18.19 per cent. Crime incidences reported to village elders were about 7.8 per cent while crime

reported to private guards accounted for 2.47 per cent. Only 4.2 per cent reported crimes to their respective MSE officials. Even with high prevalence of reporting crime incidences to the police station, 27.5 per cent of the respondents expressed their displeasure with effectiveness of national police to provide security services.

3.6.4 Self -regulation

Self-regulation is an important mechanism that brings order in the MSEs sector. This is because it reduces the cost of doing business, thus enhancing productivity, growth, and development of MSEs.

Further, it incentivizes support to the sector by different stakeholders, such as development partners. The self-regulation index score was computed using the number of procedures followed to register as a member of an association, time taken to register and the official cost. Nairobi County (86.87), Kiambu County (84.31) and Kisii County (83.778) ranked best on self-regulation. In 2019, Makueni County scored highest at 86.12. While about 53.56 per cent did not require membership renewal, about 30.56 per cent and 5.38 per cent indicated the need for a renewal after each year. Only 6.69 per cent indicated the need for renewal after every six months.

3.6.5 Participation in policy and regulatory framework

It is important for MSEs to participate in making policies and laws that affect their operations. In this indicator, the proportion of MSEs that have participated in formulating the policies, laws or plans that support the business environment was considered. As shown in Table 12, MSEs participation is quite low. Wajir, Nandi, Busia and Nyamira counties ranked best. On average, between 20 per cent and 40 per cent of MSEs in Wajir County were aware of laws, policies or plans within the county that support the business environment. Even though members were aware of existing laws, policies or plans within the county that support the business environment for MSEs, only about 43.52 per cent participated in the actual process of developing them. Majority of the members who participated did so through public meetings/rallies (71.23 per cent) and barazas (63.21 per cent). Only 12.37 per cent participated in planning/budgeting forums while only 5 per cent participated in sector working group/committees.

The awareness of existing laws, policies or plans was as follows: County Integrated Development Plan 50.17 per cent, County Policy on Trade Development and Regulation 30.89 per cent, County Revenue Collection Policy 20.93 per cent,

County Policy on Planning 13.95 per cent and County Policy on Co-operative Societies 12.62 per cent.

3.7 Risk Preparedness and Management

The risk and preparedness management indicators were status of risk preparedness and management, and knowledge and uptake of social security. Risk preparedness and management is critical for MSEs sustainability and business continuity especially during shocks and or stressors events such as the COVID-19 pandemic. The knowledge and uptake of social security had an average score of 29.20 compared to the status indicator at 23.30 as reported in Table 14.

Table 14: Scores for risk preparedness and management in MSE sector at the county level

Counties	Status of risk preparedness and management	Knowledge and uptake of social security	Average
Baringo	17.20	20.64	18.92
Bomet	26.58	37.14	31.86
Bungoma	27.09	30.75	28.92
Busia	19.55	23.85	21.70
Elgeyo Marakwet	20.33	23.06	21.70
Embu	17.20	31.61	24.40
Garissa	15.29	9.08	12.18
Homa Bay	14.17	19.99	17.08
Isiolo	51.60	-	25.80
Kajiado	43.57	46.15	44.86
Kakamega	30.10	39.56	34.83
Kericho	24.94	32.25	28.60
Kiambu	24.48	36.71	30.59
Kilifi	36.55	37.63	37.09
Kirinyaga	29.24	42.36	35.80
Kisii	17.53	32.63	25.08
Kisumu	27.10	36.75	31.92
Kitui	13.38	21.50	17.44
Kwale	26.76	33.92	30.34
Laikipia	41.28	47.01	44.15
Lamu	-	21.50	10.75
Machakos	36.21	43.23	39.72

Counties	Status of risk preparedness and management	Knowledge and uptake of social security	Average
Makueni	32.79	47.57	40.18
Mandera	27.95	45.69	36.82
Marsabit	22.36	20.43	21.39
Meru	13.66	11.13	12.39
Migori	23.65	20.89	22.27
Mombasa	40.76	45.41	43.08
Murang'a	12.70	32.35	22.52
Nairobi	33.35	48.15	40.75
Nakuru	29.49	41.16	35.32
Nandi	29.62	30.58	30.10
Narok	12.51	16.81	14.66
Nyamira	22.46	27.71	25.08
Nyandarua	27.95	24.62	26.28
Nyeri	31.94	32.68	32.31
Samburu	7.37	10.44	8.91
Siaya	9.56	21.98	15.77
Taita Taveta	18.63	21.50	20.07
Tana River	11.47	22.93	17.20
Tharaka Nithi	9.14	15.05	12.09
Transnzoia	0.50	30.82	15.66
Turkana	15.77	18.63	17.20
Uasin Gishu	27.82	35.66	31.74
Vihiga	29.24	38.27	33.76
Wajir	22.11	19.66	20.89
West Pokot	22.11	25.19	23.65
Average	**23.30**	**29.20**	**26.25**

Source: Authors calculations

Note: A dash (-) denotes not assessed

3.7.1 Status of risk preparedness and management

In assessing the status of risk preparedness and management, two components were considered: the proportion of MSEs aware of need for risk preparedness and management, and proportion of MSEs that have taken measures to handle risk. This is important in addressing MSEs mitigation measures against shocks. As shown in Table 14, the status across counties was low. Isiolo ranked best with

a score of 51.60 with Kajiado and Laikipia counties scoring 43.57 and 41.28, respectively. In Isiolo County, the proportion of MSEs aware of the need for risk preparedness and management is between 40-60 per cent. Generally, the survey indicated that 72.05 per cent of MSEs were aware of the need for risk preparedness and management.

3.7.2 Knowledge and uptake of social security

This indicator considered the proportion of MSEs that have knowledge of importance of insurance for their business, the proportion of MSEs that have knowledge of importance of health insurance, and proportion of MSEs that have taken insurance for their business, and proportion of MSEs that have taken health insurance. This is critical in serving as a recourse mechanism for MSEs during shock events. The best ranked county was Nairobi County with a score of 48.19 followed by Makueni County at 47.57 and Laikipia County at 47.01. Meru, Samburu, Garissa and Isiolo counties scored the least on this indicator. In Nairobi County, about 20-40 per cnt of MSEs have the knowledge of importance of business insurance with below 10 per cent taking insurance for their businesses. Similarly, while the proportion of MSEs aware of the importance of health insurance is more than 80 per cent, only 40-60 per cent have taken up health insurance. Generally, about 72.05 per cent of MSEs country wide consider social security issues such as insurance to be important for their business.

4. CONCLUSIONS AND POLICY IMPLICATIONS

The revised County Business Environment for MSEs framework takes into consideration key areas that contribute to growth and survival of MSEs. They include worksite and related infrastructure, market environment, technical capacity, governance, and regulatory framework, financial inclusion, and risk and preparedness management. The performance in these areas differed across different counties and within indicators. The indicator on the self-regulation ranked best, with innovation and patenting ranking the worst. This depicts the unique challenges that counties face.

a) Worksite and related infrastructure

Secure worksites provide an enabling environment for efficient operations of MSEs. Generally, the acquisition of worksites is layered with bureaucracies, with majority of MSEs operating from semi-temporal and temporal worksites. This is acting as a barrier to developing the worksites. The worksites are constrained by supporting amenities, including water supply, Internet connection and availability of waste management system. Lengthy and expensive procedures of water connection and limited areas designated for waste inhibit proper functioning of MSEs in addition to posing a health risk at the worksite. Further, common manufacturing facilities are only accessed by a few MSEs, who still indicated the challenges of access and quality and effectiveness of the equipment available. In addressing the challenges, the following interventions are necessary:

- County Governments to enhance collaboration with MSEA to increase the number of equipped worksites available to MSEs and make them accessible to the majority of MSEs with ease. The common manufacturing facilities should be developed according to the needs of the users and fitted with up-to-date tools and equipment to fully benefit the MSEs.
- There is also need for county governments to establish partnership with Kenya Power and Lightening Company to connect electricity at the worksites at affordable rates. Further, stable supply of water at the worksite at affordable rates is key to providing a suitable working environment for MSEs.
- In collaboration with Information, Communication and Technology Authority and other private Internet providers, there is need to provide Internet at the

worksites. This is especially critical in facilitating MSEs online transaction of goods and services.

b) Market environment

The growth for MSEs is largely determined by the extent to which they sell their goods and services. The opportunity to access government contracts through AGPO has not yet fully been embraced by MSEs. This is because of low awareness amongst the MSEs. Further, the numerous procurement procedures required for prequalification have crowded out MSEs from making AGPO applications. In addition, MSEs do not access AGPO advertisements, which are largely made through print media and government websites. Upon prequalification, majority of MSEs do not make it to the tender offer owing to the inability to fulfil financial requirements needed to be extended the tender offer.

Additionally, there are limited approaches used by the County Governments to promote cross county and international trade for MSEs. This is so even with the sector experiencing challenges of unfair trade such as counterfeiting, dumping, misrepresentation, unfair advertisement, and contract enforcement. Thus, there remains a gap that requires ramped up efforts of protecting MSEs against unfair trade practices. Therefore, action is required to address these challenges:

- County Governments to partner with The National Treasury and other relevant stakeholders to sensitize MSEs on what AGPO entails and how they can participate. This could further be supported by Kenya Bureau of Standards by supporting MSEs through trainings on upgrading the quality of their products to the required standards.
- In collaboration with other government agencies such as Anticounterfeit Agency, the Kenya Revenue Authority and other relevant stakeholders, and county governments need to embrace efforts to create a level playing ground for MSEs by mitigating unfair trade practices.

c) Financial Inclusion

Access to quality formal finance services including savings and credit services is crucial for sustainability of MSEs. Despite the significant efforts by the government to promote financial inclusion through regulatory frameworks and establishment of government initiative funds including a credit guarantee scheme, MSEs still face a challenge of accessing financial services, especially credit. Similarly, there is low awareness in uptake of innovative financial platforms such as *Mshwari* and *M-Akiba*. This is largely because MSEs are skeptical of defaulting, resulting to

CRB listing. Therefore, there is need for:

- County Governments in collaboration with financial institutions to sensitize MSEs on financial literacy and uptake of financial innovations for savings mobilization and acquisition of credit. This includes collaboration with CRB agencies to raise awareness among the MSEs payment of credit facilities and financial discipline around loan management.
- County Governments in collaboration with relevant stakeholders need to create effective and structured awareness campaigns on availability and accessibility of available government financing opportunities, including the Credit Guarantee Scheme.

d) Technical Capacity

MSEs experience challenges acquiring and developing relevant technical skills and other supporting skills such as financial, managerial skills and entrepreneurial skills necessary for the growth. Further, MSEs have limited understanding of new technology trends, thus using outdated technology in production of goods and services, which erodes their efficiency and competitiveness. There are also inadequate incubation services that provide MSEs with unique ideas, training, and necessary funding to innovate. Even for those who innovate, majority of them are not aware of patenting or the need to patent, thereof. These challenges contribute to diminished survival rate for MSEs, with majority closing shop within or less than 3 years of operations. Therefore, there is need for interventions.

- County Government to collaborate with MSEA, Kenya Institute of Business Training, National Industrial Training Authority, and other relevant stakeholders to offer demand-driven training and certification to MSEs. This can be made possible through conducting regular Training Needs Assessment (TNA) to identify skills gaps, developing holistic demand-driven capacity building programmes delivered by certified trainers, and conducting evaluations and assessments of capacity building programmes amongst MSEs. This also need a to promote mentorship and apprenticeship through youth empowerment centres where MSEs can obtain practical skills and tacit knowledge. The training needs to be structured to incorporate technology transfer, commercialization of innovations and engagement of private sector through partnerships and incentives.
- County Government to collaborate with relevant stakeholders, both government institutions such as Kenya Industrial Research and Development Institute, Kenya Industrial Estates and Kenya Industrial Property Institute and other non-government stakeholders to ease access of incubation centres to

enhance innovation. Further, there is need to conduct outreach programmes on the importance of intellectual property among the MSEs, and procedures to undertake to register their innovations.

e) Governance and regulatory framework

Governance of MSEs through the associations is paramount in ensuring their development through lobbying for government support. While their internal governance in form of self-regulation is efficient, there is limited awareness among the MSEs on the need to participate in formulation of policies and laws that affect their operations and create awareness on the same. As such, there is need for adequate representation of MSEs in public participation forums, which provides an opportunity to both National and County Governments to capture the right needs for policy interventions. Further, the reported irregularities in form of corruption increase the cost of doing business for MSEs. The corruption practice is more evident in workspace allocation, acquiring for permits and licenses, paying daily market fees and constructing illegal worksites. Therefore, there is need for relevant interventions:

- County Governments to enhance awareness creation and participation of MSEs on existing policies, laws, and their formulation. This can be done in collaboration with other relevant institutions such as Kenya Ravenue Authority.
- County Governments in collaboration with MSEA to establish easy procedures to obtain workspace and the supporting amenities, thus minimising the need for MSEs to corrupt officials to get preferential treatment.
- County Government to strengthen their revenue collection system and possibly automate the revenue collection process, thus sealing available loopholes that promote corruption. Enhanced collaborations with Ethics and Anti-corruption Commission and the National Police would facilitate such cases once reported.

f) Risk preparedness and Management

MSEs face higher external business risks due to their nature of operations, which poses a threat to their development. However, they have limited awareness on the need to prepare for external shocks through uptake of insurance and any other form of social securities. To deal with these challenges:

- County Government in collaboration with other relevant stakeholders to build capacity and awareness for MSEs on risk preparedness and management and social security uptake. This involves training MSEs on effective risk mitigations, adaptations, and coping mechanisms against unforeseen hazards. Further, in collaboration with the National Government, there is need to raise awareness among MSEs on National Health Insurance Fund and Universal Health Coverage, useful in guarding MSEs against cost of treatment in case of illness of entrepreneurs.

REFERENCES

Government of Kenya (2018), Third Medium-Term Plan 2018-2022. Nairobi: The National Treasury and Planning.

Government of Kenya (2020), Sessional Paper No. 05 of 2020 on the Kenya Micro and Small Enterprises. Nairobi: Government Printer.

Kenya National Bureau of Statistics–KNBS (2016), Micro Small and Medium Establishments: Basic Report 2016. Nairobi: Government Printer.

Kenya National Bureau of Statistics (2021), Economic Survey. Nairobi: Government Printer.

Kenya National Bureau of Statistics (2020), KNBS Survey on Socio-Economic Impact of COVID-19 on Households Report, Wave 2. Nairobi: Government Printer.

KIPPRA and the Council of Governors and KIPPRA (2020), County COVID-19 Social-Economic Re-Engineering Recovery Strategy 2020/21-2022/23. Nairobi: Council of Governors.

OECD (2021), Enhancing the Contributions of SMEs. Paris: OECD.

Pallant, J. (2020), *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.

WorldBank (2018), Doing Business 2019: Training for Reform. Washington DC: World Bank.

APPENDICES

Appendix 1: Global Ease of Doing Business

Indicator set	What is measured
Starting a business	Procedures, time, cost and paid-in minimum capital to start a limited liability company for men and women
Dealing with construction permit	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 transparency of tariffs
Registering property	Procedures, time, and cost to transfer a property and the quality of the land administration system for men and women
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 and contribution rate for a firm to comply with all tax regulations as well as post filing processes
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 judicial processes for men and women
Resolving insolvency	Time, cost, outcome and recovery rate for a commercial insolvency and the strength of the legal framework for insolvency
Employing workers	Flexibility in employment regulation and aspects of job quality
Contracting with the government	Procedures and time to participate in and win a works contract through public procurement and the public procurement regulatory framework

Source: World Bank (2020)

Appendix 2: Number of MSEs associations interviewed and membership across sectors

Counties	Number of MSEs Associations Interviewed	Membership across sectors				Total
		Manufacturing	Agri-business	Trade	Services	
Baringo	5	277	489	375	260	1,401
Bomet	11	182	151	95	184	612
Bungoma	20	242	252	338	163	995
Busia	11	119	751	3,406	1,296	5,572
Elgeyo Marakwet	11	253	159	158	219	789
Embu	20	1,053	212	727	398	2,390
Garissa	9	138	-	48	419	605
Homa Bay	18	703	264	286	476	1,729
Isiolo	1	23	-	-	19	42
Kajiado	15	2,000	18	149	2,344	4,511
Kakamega	30	339	149	552	1,071	2,111
Kericho	10	175	138	62	83	458
Kiambu	23	1,988	207	243	4,957	7,395
Kilifi	8	155	10	37	152	354
Kirinyaga	20	179	211	142	259	791
Kisii	25	443	769	120	6,793	8,125
Kisumu	33	795	237	6,681	2,287	10,000
Kitui	9	179	39	117	100	435
Kwale	9	113	56	82	49	300
Laikipia	15	177	261	133	103	674
Lamu	1	11	33	15	6	65
Machakos	19	884	841	255	670	2,650
Makueni	16	363	80	813	70	1,326
Mandera	8	50	-	146	300	496
Marsabit	5	27	6	39	69	141
Meru	17	343	229	430	298	1,300
Migori	28	555	168	100	209	1,032
Mombasa	13	424	6	2,536	416	3,382
Murang'a	21	508	2,356	495	205	3,564
Nairobi	21	436	45	760	1,073	2,314

Nakuru	28	776	1,983	4,707	1,077	8,543
Nandi	9	52	58	91	521	722
Narok	11	552	324	261	315	1,452
Nyamira	18	728	484	113	468	1,793
Nyandarua	40	281	906	444	418	2,049
Nyeri	35	162	190	531	536	1,419
Samburu	7	169	15	46	5	235
Siaya	9	371	208	58	387	1,024
Taita Taveta	6	229	9	28	116	382
Tana River	3	30	7	34	35	106
Tharaka Nithi	16	236	725	164	174	1,299
Trans Nzoia	6	205	45	114	211	575
Turkana	6	50	-	532	110	692
Uasin Gishu	17	942	581	394	481	2,398
Vihiga	10	346	36	97	4,132	4,611
Wajir	7	46	2	53	71	172
West Pokot	7	20	33	107	3	163
Total	687	18,329	13,743	27,114	34,008	93,194
%		19.67	14.75	29.09	36.49	100.00

Source: Authors' calculations

Note: A dash denotes not assessed

Appendix 3: Worksite and related infrastructure

Counties	Access to worksites							Access to common manufacturing facilities			
	Proce-dures	Time taken to acquire worksite	Cost	Legality	Perma-nency	Distance	Time taken	Proce-dures	Distance	Time taken	Num-ber of facilities available
Baringo	40.28	51.79	68.74	1.80	43.16	86.32	64.74	27.52	17.20	30.10	10.32
Bomet	53.62	43.16	47.08	0.31	31.39	56.24	52.97	10.95	15.64	15.64	-
Bungoma	37.40	53.95	43.16	0.42	34.53	58.98	55.03	7.74	16.34	17.20	-
Busia	64.08	43.16	54.62	0.73	51.01	57.54	49.04	26.58	28.15	21.50	12.51
Elgeyo Marakwet	47.08	39.24	62.01	0.86	51.01	86.32	76.51	12.51	14.07	13.68	1.56
Embu	56.62	62.35	46.09	0.54	60.20	68.08	58.05	28.38	22.36	34.40	6.02
Garissa	9.56	43.00	-	0.16	57.33	70.07	69.28	28.67	-	21.50	5.73
Homa Bay	37.96	55.68	35.39	0.31	53.15	72.55	64.54	9.10	8.09	7.58	4.04
Isiolo	57.54	-	-	0.52	86.32	57.54	64.74	86.00	86.00	86.00	17.20
Kajiado	27.81	40.28	22.63	-	37.40	36.45	34.53	21.79	22.93	25.80	1.15

Kakamega	61.38	34.53	53.91	0.07	51.79	61.86	61.14	27.52	27.52	43.00	8.03
Kericho	60.42	69.05	69.05	0.19	38.84	57.54	51.79	29.24	34.40	34.40	1.72
Kiambu	82.10	43.00	31.16	1.63	46.91	79.49	66.46	23.66	24.48	23.46	0.82
Kilifi	64.50	53.75	20.93	0.02	53.75	68.08	64.50	8.60	10.75	10.75	-
Kirinyaga	43.16	36.68	50.53	0.14	62.58	74.09	69.05	23.22	27.52	23.65	1.72
Kisii	47.23	55.93	37.11	0.24	33.56	56.56	49.41	31.32	28.34	31.70	5.97
Kisumu	52.75	48.39	56.78	1.52	43.16	64.52	60.81	22.93	26.06	29.32	7.30
Kitui	19.18	33.57	18.58	0.12	43.16	47.95	47.95	47.78	22.93	40.61	1.91
Kwale	41.41	14.33	9.09	0.01	57.33	68.48	62.11	19.11	19.11	16.72	3.82
Laikipia	42.20	48.91	45.42	0.12	48.91	64.26	48.91	10.36	11.51	11.51	2.30
Lamu	-	86.32	-	-	86.32	57.54	64.74	86.32	-	86.32	51.79
Machakos	50.73	24.99	8.89	0.03	43.16	55.27	54.52	26.25	34.40	36.21	1.81
Makueni	44.96	43.16	10.45	0.07	59.34	44.06	37.76	19.35	13.98	14.78	-
Mandera	17.92	37.63	10.71	0.20	32.25	66.29	61.81	25.80	-	26.88	4.30
Marsabit	28.77	8.63	34.39	0.08	60.42	54.67	47.47	17.20	24.08	30.10	3.44
Meru	26.98	35.41	25.01	0.07	50.59	69.14	65.76	30.35	-	27.82	2.02
Migori	56.52	33.91	43.12	0.05	46.24	62.17	56.26	31.94	20.27	23.80	0.61
Mombasa	64.35	21.45	21.42	7.15	42.90	54.82	50.05	11.44	7.15	21.45	-
Murang'a	51.38	49.32	44.96	0.37	53.43	63.71	62.68	18.84	20.48	26.62	4.10
Nairobi	68.90	42.28	27.78	0.31	30.53	82.21	72.81	15.03	11.27	16.44	0.94
Nakuru	58.57	55.49	30.07	-	49.32	64.74	69.36	16.59	21.50	23.80	1.84
Nandi	63.94	23.98	47.92	0.92	67.14	76.73	86.32	45.87	47.78	38.22	-
Narok	26.16	58.85	31.36	0.92	23.54	49.70	39.24	15.64	12.51	21.50	7.82
Nyamira	33.57	31.17	19.14	0.91	52.75	68.73	61.14	6.69	8.60	10.75	3.82
Nyandarua	52.51	39.92	57.66	0.06	44.24	68.69	59.34	10.75	11.61	11.83	-
Nyeri	41.93	33.29	50.67	0.13	49.32	69.46	62.27	18.67	17.69	17.20	0.98
Samburu	22.61	49.32	23.88	-	49.32	30.83	30.83	36.99	7.40	24.66	-
Siaya	38.22	47.78	28.55	0.22	47.78	68.48	54.94	13.38	19.11	16.72	3.82
Taita Taveta	50.17	57.33	-	-	57.33	62.11	71.67	54.47	28.67	68.08	14.33
Tana River	-	28.77	-	-	57.54	47.95	43.16	-	-	-	-
Tharaka Nithi	8.99	48.55	5.37	-	48.55	27.87	29.67	36.68	-	18.88	4.32
Trans Nzoia	59.94	35.97	43.10	1.43	43.16	74.33	71.93	25.90	28.77	28.77	-
Turkana	33.57	64.74	28.71	0.65	43.16	43.16	35.97	-	-	-	-
Uasin Gishu	53.31	35.54	65.72	0.21	45.70	62.62	62.20	27.42	24.37	24.12	2.03
Vihiga	57.54	43.16	51.26	0.05	73.37	54.67	56.11	13.76	39.56	34.40	5.16
Wajir	81.90	12.29	40.40	0.15	49.14	69.62	67.57	24.57	19.66	21.50	-
West Pokot	22.61	36.99	11.97	0.07	30.83	45.21	46.24	-	-	-	-

Continued: Worksite and related infrastructure

	Electricity connection						Water connection					
	Procedures	Cost	Time taken	Monthly cost	Outage Frequency	Times Monitored	Procedures	Time taken	Cost	Monthly Cost	Water shortage frequency	Times Monitored
Baringo	53.51	68.80	79.12	45.87	86.00	-	12.90	25.80	34.40	34.40	34.40	-
Bomet	36.48	33.23	43.78	29.97	43.00	-	-	-	-	-	15.64	-
Bungoma	27.23	23.65	22.36	22.22	25.80	-	8.60	16.13	12.90	12.90	30.10	-
Busia	39.96	54.73	53.16	40.39	58.64	-	3.91	5.86	7.82	15.64	7.82	-
Elgeyo Marakwet	34.75	44.95	48.47	29.97	46.91	-	11.73	13.68	15.64	23.45	27.36	-
Embu	41.57	50.53	54.18	36.55	58.05	-	9.68	15.05	19.35	23.65	30.10	2.15
Garissa	-	-	-	11.15	28.67	-	-	-	-	-	23.89	-
Homa Bay	56.80	50.62	53.66	36.28	50.62	-	15.17	3.79	12.64	17.69	2.53	-
Isiolo	57.33	86.00	68.80	57.33	86.00	-	-	-	-	-	86.00	-
Kajiado	14.01	25.80	27.52	21.02	25.80	-	-	-	-	5.73	5.73	-
Kakamega	55.10	39.42	37.27	37.74	57.33	-	9.32	9.32	14.33	14.33	22.93	-
Kericho	25.80	34.40	29.24	20.07	34.40	-	15.05	6.45	17.20	17.20	34.40	-
Kiambu	37.17	37.73	36.71	36.03	57.11	-	9.20	6.13	8.17	12.26	32.70	-
Kilifi	16.72	26.88	27.95	41.21	64.50	-	2.69	2.69	10.75	10.75	-	-
Kirinyaga	54.47	53.75	48.16	45.87	66.65	-	23.65	29.03	38.70	34.40	45.15	2.15
Kisii	37.29	30.76	27.59	21.13	31.70	3.73	-	-	-	7.44	-	-
Kisumu	58.20	41.70	38.57	42.57	65.15	2.61	6.52	7.17	7.82	7.82	39.09	2.61
Kitui	6.37	9.56	7.64	11.15	19.11	-	9.56	9.56	9.56	19.11	19.11	-
Kwale	18.05	21.50	19.11	31.85	19.11	9.56	-	-	-	-	-	-
Laikipia	68.16	63.07	56.19	48.73	65.93	-	25.80	12.90	17.20	22.93	48.73	2.87
Lamu	-	-	-	43.00	86.00	-	-	-	-	-	-	-
Machakos	16.60	22.63	29.87	28.67	47.53	-	-	2.26	4.53	4.53	-	-
Makueni	18.51	13.44	17.20	14.33	26.88	-	5.38	4.03	5.38	6.72	10.75	-
Mandera	37.03	40.31	40.85	32.25	26.88	-	-	-	-	-	5.38	-
Marsabit	32.49	47.30	41.28	28.67	25.80	-	-	-	-	-	-	-
Meru	29.23	37.94	21.25	36.25	53.12	-	3.79	-	7.59	10.12	22.76	-
Migori	52.90	47.61	44.23	34.30	43.00	-	-	0.77	3.07	1.54	-	-
Mombasa	3.97	5.36	7.15	19.07	25.03	-	-	-	-	-	-	-
Murang'a	37.77	43.00	41.77	28.67	43.00	-	9.21	13.31	6.14	16.38	16.38	-
Nairobi	50.63	45.80	54.49	36.01	56.37	4.70	5.89	11.79	11.79	12.96	37.71	4.71
Nakuru	58.02	29.95	33.79	43.00	59.89	-	2.30	3.07	3.07	3.07	29.18	-
Nandi	67.95	52.56	53.51	43.00	66.89	-	7.17	9.56	-	9.56	38.22	4.78
Narok	19.11	27.36	23.45	16.94	27.36	15.64	1.95	7.82	7.82	5.86	3.91	-
Nyamira	31.85	22.69	23.89	24.69	33.44	14.33	-	-	-	-	2.39	-
Nyandarua	47.06	53.21	37.84	39.06	55.90	4.30	5.38	8.06	5.38	12.90	23.65	2.15
Nyeri	57.06	58.36	51.11	49.14	67.57	2.46	7.37	13.51	17.20	27.03	51.60	-
Samburu	40.95	46.07	27.03	24.57	36.86	-	-	-	-	12.29	18.43	-
Siaya	53.09	59.72	57.33	43.00	33.44	-	7.17	2.39	9.56	9.56	4.78	4.78

Taita Taveta	54.15	68.08	57.33	54.94	71.67	-	3.58	-	-	14.33	14.33	-
Tana River	15.93	35.83	34.40	28.67	57.33	-	21.50	28.67	28.67	28.67	14.33	-
Tharaka Nithi	9.56	9.41	3.23	25.08	34.94	-	4.03	8.06	10.75	16.13	29.56	-
Trans nzoia	49.37	50.17	57.33	28.67	57.33	-	17.92	25.08	14.33	28.67	-	-
Turkana	39.81	39.42	43.00	19.11	43.00	-	7.17	7.17	14.33	10.75	21.50	-
Uasin Gishu	47.22	48.06	48.38	36.25	60.71	-	3.79	6.32	5.06	13.91	35.41	-
Vihiga	46.82	51.60	49.88	35.83	43.00	-	-	-	-	-	8.60	-
Wajir	49.14	64.50	68.80	38.90	49.14	-	-	-	-	-	-	-
West Pokot	35.49	33.79	27.03	20.48	30.71	-	-	-	-	-	-	-

Continued: Worksite and related infrastructure

	Public Toilets			Waste Management					
	Distance	Time taken	Costs of access	Proce-dures	Time taken	costs of access	Monthly cost	Distance to the nearest waste disposal point	Times Monitored
Baringo	51.60	51.60	43.00	34.40	51.60	51.60	51.60	34.40	25.80
Bomet	31.27	31.27	19.55	33.44	35.83	35.83	35.83	35.83	28.67
Bungoma	55.90	55.90	47.30	34.40	32.97	38.70	43.00	43.00	10.75
Busia	54.73	54.73	15.64	15.64	36.48	50.82	46.91	50.82	11.73
Elgeyo Marakwet	70.36	70.36	62.55	59.72	57.33	64.50	64.50	64.50	21.50
Embu	75.25	75.25	47.30	35.83	30.10	30.10	27.95	45.15	19.35
Garissa	38.22	38.22	-	-	-	9.56	19.11	38.22	14.33
Homa Bay	55.68	55.68	32.90	16.08	21.44	10.72	16.08	21.44	5.36
Isiolo	86.00	86.00	43.00	-	-	-	-	-	-
Kajiado	40.13	40.13	31.53	5.73	-	-	-	5.73	-
Kakamega	44.43	44.43	22.93	20.07	25.80	31.53	28.67	45.87	7.17
Kericho	68.80	68.80	60.20	37.27	43.00	43.00	43.00	43.00	34.40
Kiambu	59.15	59.15	32.63	36.71	53.03	36.71	40.79	53.03	26.52
Kilifi	64.50	64.50	32.25	-	-	10.75	21.50	21.50	5.38
Kirinyaga	73.10	73.10	53.75	50.17	55.90	55.90	60.20	58.05	25.80
Kisii	44.75	44.75	20.51	9.94	11.19	11.19	11.19	11.19	9.32
Kisumu	49.52	49.52	29.97	12.16	18.24	31.27	32.58	44.30	6.52
Kitui	52.56	52.56	23.89	6.37	9.56	9.56	38.22	38.22	9.56
Kwale	71.67	71.67	43.00	-	-	9.56	9.56	19.11	4.78
Laikipia	51.60	51.60	37.27	55.42	49.69	63.07	63.07	68.80	28.67
Lamu	-	-	-	-	-	-	-	-	-
Machakos	45.26	45.26	29.42	4.53	-	-	9.05	22.63	-
Makueni	53.75	53.75	40.31	10.75	-	5.38	10.75	32.25	8.06
Mandera	32.25	32.25	10.75	21.50	32.25	10.75	32.25	48.38	10.75
Marsabit	17.20	17.20	-	-	-	-	34.40	34.40	-

Meru	48.06	48.06	35.41	10.12	10.12	15.18	35.41	45.53	2.53
Migori	39.93	39.93	21.50	15.36	15.36	13.82	15.36	18.43	10.75
Mombasa	46.48	46.48	35.75	7.15	7.15	3.58	3.58	7.15	-
Murang'a	65.52	65.52	40.95	16.38	12.29	16.38	16.38	24.57	18.43
Nairobi	65.77	65.77	35.23	48.54	61.07	56.37	56.37	61.07	35.23
Nakuru	43.00	43.00	19.96	12.29	27.64	27.64	26.11	38.39	19.96
Nandi	76.44	76.44	57.33	54.15	57.33	57.33	47.78	57.33	57.33
Narok	23.45	23.45	11.73	7.82	5.21	7.82	7.82	7.82	-
Nyamira	23.89	23.89	14.33	7.96	3.19	4.78	-	9.56	7.17
Nyandarua	48.38	48.38	44.08	27.23	27.95	51.60	53.75	50.53	31.18
Nyeri	78.63	78.63	52.83	47.50	50.78	49.14	49.14	56.51	30.71
Samburu	12.29	12.29	12.29	-	-	12.29	-	24.57	12.29
Siaya	28.67	28.67	14.33	19.11	19.11	14.33	4.78	19.11	9.56
Taita Taveta	43.00	43.00	43.00	-	-	-	-	-	-
Tana River	28.67	28.67	28.67	-	-	-	-	28.67	-
Tharaka Nithi	37.63	37.63	10.75	5.38	-	-	5.38	16.13	8.06
Transnzoia	57.33	57.33	50.17	28.67	28.67	28.67	28.67	28.67	-
Turkana	71.67	71.67	43.00	28.67	28.67	28.67	28.67	28.67	21.50
Uasin Gishu	60.71	60.71	60.71	38.78	45.53	45.53	45.53	45.53	25.29
Vihiga	77.40	77.40	38.70	8.60	-	-	-	25.80	12.90
Wajir	61.43	61.43	49.14	36.86	49.14	49.14	36.86	36.86	12.29
West Pokot	49.14	49.14	49.14	24.57	24.57	24.57	24.57	24.57	6.14

Continued: Worksite and related infrastructure

	Internet connection						
Counties	% of MSEs accessing internet	Procedures	Cost of connection	Monthly Cost	Duration of outage	Frequency of outage	Times Monitored
Baringo	4.32	-	-	-	-	-	-
Bomet	33.35	-	-	-	-	-	-
Bungoma	17.26	-	-	4.32	4.32	2.16	-
Busia	3.92	23.54	23.54	7.85	3.92	3.92	-
Elgeyo Marakwet	5.89	-	-	5.23	-	-	-
Embu	25.80	-	-	7.17	6.45	12.90	-
Garissa	-	-	-	9.56	9.56	9.56	-
Homa Bay	31.64	-	-	-	-	-	-
Isiolo	-	-	-	-	-	-	-
Kajiado	24.46	-	-	3.84	5.75	11.51	-
Kakamega	21.58	-	-	-	-	-	-
Kericho	28.05	-	-	-	-	-	-
Kiambu	19.38	-	-	8.16	8.16	8.16	-
Kilifi	16.13	-	-	-	-	-	-
Kirinyaga	11.87	1.44	4.32	-	-	-	-

Kisii	12.12	3.73	-	-	-	-	-
Kisumu	11.77	5.23	4.36	1.74	1.31	2.62	-
Kitui	-	-	-	-	-	-	-
Kwale	14.33	-	-	6.37	9.56	9.56	-
Laikipia	17.26	3.84	1.92	-	-	-	-
Lamu	-	-	-	-	-	-	-
Machakos	17.04	3.03	3.03	1.51	4.54	4.54	-
Makueni	25.63	-	-	-	-	-	-
Mandera	-	-	-	-	-	-	-
Marsabit	-	17.26	5.75	5.75	17.26	17.26	-
Meru	2.53	-	3.37	-	-	-	-
Migori	27.74	-	-	5.14	6.17	6.17	-
Mombasa	26.81	-	-	-	-	-	-
Murang'a	11.30	-	-	2.74	-	-	-
Nairobi	24.66	4.70	-	-	-	-	-
Nakuru	36.22	3.08	-	-	-	-	-
Nandi	38.36	9.59	3.20	-	-	-	-
Narok	19.62	-	-	7.85	15.69	15.69	-
Nyamira	10.79	-	-	-	-	-	-
Nyandarua	10.79	4.32	6.47	-	-	-	-
Nyeri	14.80	1.64	-	-	-	-	-
Samburu	6.17	-	-	-	-	-	-
Siaya	19.11	-	-	9.56	9.56	9.56	-
Taita Taveta	10.75	-	-	-	-	-	-
Tana River	-	-	-	-	-	-	-
Tharaka Nithi	1.35	-	-	1.80	5.39	5.39	-
Trans Nzoia	-	-	-	9.59	14.39	14.39	-
Turkana	7.19	-	-	-	-	-	-
Uasin Gishu	16.50	-	-	-	-	-	-
Vihiga	19.42	-	8.63	17.26	17.26	17.26	8.63
Wajir	33.79	-	-	-	-	-	-
West Pokot	18.50	-	-	12.33	12.33	12.33	-

Source: Authors' calculations

Appendix 4: Market environment

	Access to AGPO infrastructure				Quality of support						
Counties	AGPO Pre-qualification	Procedures	Time taken	Cost	Roads	Water and drainage	Security	Waste Management	Health Facilities	Public Toilet and Sewerage	On site county market officials
Baringo	4.30	-	8.60	-	64.50	21.50	51.60	38.70	43.00	38.70	38.70
Bomet	3.91	9.12	15.64	15.64	52.77	46.91	50.82	46.91	50.82	48.86	41.05

Bungoma	2.15	8.60	8.60	8.60	37.63	38.70	53.75	45.15	55.90	47.30	40.85
Busia	-	18.24	15.64	10.95	46.91	25.41	39.09	33.23	41.05	58.64	46.91
Elgeyo Marakwet	-	6.52	7.82	7.82	62.55	44.95	52.77	35.18	46.91	50.82	37.14
Embu	2.15	1.43	4.30	3.44	41.93	40.85	45.15	32.25	41.93	44.08	38.70
Garissa	-	3.19	19.11	11.47	52.56	43.00	57.33	52.56	35.83	31.06	23.89
Homa Bay	-	2.53	5.06	3.03	65.72	39.18	49.29	21.49	56.88	48.03	32.86
Isiolo	-	43.00	86.00	34.40	21.50	21.50	21.50	21.50	21.50	21.50	43.00
Kajiado	4.30	5.73	17.20	21.79	46.31	28.12	44.65	49.62	47.96	34.73	29.77
Kakamega	2.15	13.86	17.20	6.88	45.15	33.68	42.28	38.70	35.83	40.13	40.85
Kericho	-	7.17	8.60	6.88	51.60	38.70	51.60	36.55	43.00	49.45	38.70
Kiambu	-	-	4.09	1.63	52.11	43.93	50.07	51.09	54.15	38.83	38.83
Kilifi	-	17.92	53.75	49.45	37.63	40.31	45.69	59.13	43.00	32.25	13.44
Kirinyaga	-	-	4.30	4.30	48.38	40.85	50.53	40.85	39.78	62.35	56.98
Kisii	3.72	8.06	11.16	6.70	62.31	33.48	56.73	24.18	48.36	36.27	23.25
Kisumu	0.65	8.25	15.64	9.90	53.42	35.18	40.39	46.26	41.70	38.44	36.48
Kitui	-	15.93	14.33	11.47	59.72	50.17	59.72	40.61	52.56	57.33	38.22
Kwale	9.56	17.52	38.22	28.67	47.78	35.83	40.61	28.67	35.83	21.50	33.44
Laikipia	4.30	7.64	8.60	5.73	44.43	48.73	65.93	61.63	47.30	50.17	48.73
Lamu	-	-	-	-	21.50	-	64.50	-	43.00	43.00	-
Machakos	7.92	6.04	20.37	19.01	53.75	44.19	48.97	58.53	34.64	46.58	44.19
Makueni	1.34	4.48	10.75	8.60	63.07	21.50	60.20	64.50	50.17	51.60	38.70
Mandera	-	-	-	-	34.94	40.31	32.25	53.75	51.06	26.88	37.63
Marsabit	-	5.73	17.20	10.32	43.00	8.60	-	8.60	25.80	21.50	12.90
Meru	1.26	5.06	5.06	14.16	59.13	53.75	56.44	52.41	57.78	51.06	38.97
Migori	3.07	5.12	6.14	4.91	49.91	13.05	43.77	14.59	40.70	29.95	33.02
Mombasa	-	9.54	14.31	14.31	67.81	52.31	67.81	67.81	60.06	58.13	38.75
Murang'a	1.02	2.73	8.19	7.37	56.31	41.98	48.12	41.98	43.00	51.19	49.14
Nairobi	3.54	-	2.36	3.77	71.89	45.96	60.11	42.43	49.50	50.68	47.14
Nakuru	2.30	4.61	9.21	7.99	51.45	39.16	48.38	48.38	44.54	40.70	39.93
Nandi	-	-	-	-	52.56	50.17	62.11	54.94	62.11	54.94	45.39
Narok	-	-	-	-	39.09	25.41	44.95	15.64	48.86	23.45	21.50
Nyamira	1.19	5.57	9.56	9.56	49.32	22.76	40.47	21.50	40.47	17.71	27.82
Nyandarua	1.61	3.23	6.45	3.87	54.03	44.10	53.47	47.41	41.90	35.28	38.59
Nyeri	0.61	2.46	7.37	6.88	65.73	43.00	57.74	50.37	49.76	47.30	51.60
Samburu	3.07	16.38	12.29	12.29	15.36	21.50	24.57	33.79	15.36	18.43	21.50
Siaya	2.39	23.89	28.67	17.20	64.50	23.89	45.39	21.50	54.94	9.56	38.22
Taita Taveta	-	19.11	28.67	22.93	43.00	53.75	46.58	53.75	46.58	25.08	25.08
Tana River	-	23.89	28.67	22.93	50.17	7.17	57.33	14.33	21.50	14.33	7.17
Tharaka Nithi	1.34	-	5.38	3.23	36.28	45.69	57.78	55.09	49.72	43.00	34.94
Trans Nzoi	7.17	21.50	28.67	28.67	32.25	21.50	60.92	35.83	35.83	43.00	50.17
Turkana	-	9.56	14.33	14.33	46.58	28.67	53.75	28.67	43.00	39.42	39.42
Uasin Gishu	-	2.53	5.06	5.06	57.78	55.09	55.09	56.44	57.78	56.44	45.69

Vihiga	-	10.03	12.90	8.60	45.15	27.95	47.30	32.25	32.25	43.00	32.25
Wajir	-	-	-	-	49.14	18.43	43.00	33.79	30.71	15.36	49.14
West Pokot	-	-	-	-	77.71	29.14	68.00	53.43	48.57	24.29	77.71

Continued: Market environment

	Ease of access to road infrastructure			Trade participation			Unfair competition	Access to markets		
Counties	Distance	Time taken	Costs	Fairness of taxes and permits	Cross-county trade promotion	International trade promotion	Unfair competition practices	Distance to the nearest market	Time taken to nearest market	Levies imposed
Baringo	86.00	81.70	86.00	22.93	-	-	17.20	86.00	86.00	71.67
Bomet	70.36	66.45	84.05	13.03	17.59	-	23.45	79.75	72.32	86.00
Bungoma	68.80	67.73	69.88	15.77	18.28	-	25.80	76.54	76.33	82.42
Busia	56.29	58.64	74.27	26.06	9.77	19.55	39.09	67.24	72.32	63.85
Elgeyo Marakwet	73.49	80.14	82.09	33.88	15.64	-	7.82	81.31	78.18	75.58
Embu	75.68	75.25	80.63	22.93	7.53	2.15	45.58	72.24	72.03	66.65
Garissa	0.91	0.92	0.72	9.56	-	4.78	9.56	86.00	86.00	57.33
Homa Bay	80.89	82.15	80.89	5.06	-	-	41.46	75.83	77.10	80.05
Isiolo	86.00	86.00	-	86.00	-	-	34.40	68.80	64.50	86.00
Kajiado	58.48	58.77	61.63	15.29	-	-	28.67	51.60	51.60	48.73
Kakamega	65.36	66.65	65.93	15.29	1.43	1.43	32.11	73.39	74.53	74.53
Kericho	73.96	73.10	75.25	28.67	2.15	-	8.60	68.80	77.40	78.83
Kiambu	84.19	84.80	77.65	21.80	10.22	4.09	40.05	75.20	73.57	66.75
Kilifi	86.00	86.00	86.00	-	-	-	10.75	92.15	90.94	94.98
Kirinyaga	73.96	67.73	79.55	25.80	15.05	-	35.26	61.06	56.98	77.40
Kisii	81.84	78.12	81.84	34.72	1.86	-	35.71	66.96	68.82	79.36
Kisumu	72.97	72.97	76.23	24.32	2.61	1.30	48.99	69.84	72.97	66.45
Kitui	61.16	69.28	78.83	15.93	9.56	4.78	49.69	68.80	76.44	79.63
Kwale	70.71	74.06	71.67	12.74	2.39	14.33	38.22	57.33	62.11	74.85
Laikipia	67.65	63.07	65.93	24.84	10.03	-	19.49	56.19	51.60	65.93
Lamu	51.60	64.50	43.00	-	-	43.00	86.00	51.60	64.50	57.33
Machakos	76.04	76.95	73.55	19.61	10.18	-	26.25	62.46	62.24	64.12
Makueni	77.40	76.59	77.94	12.54	14.78	-	29.03	72.03	71.22	60.92
Mandera	53.75	61.81	43.00	-	-	-	32.25	77.40	64.50	32.25
Marsabit	65.36	55.90	55.90	11.47	-	-	48.16	75.68	73.10	71.67
Meru	58.68	59.44	64.50	32.04	1.26	2.53	32.38	78.92	79.68	79.25
Migori	73.71	72.18	80.63	10.24	3.07	1.54	39.93	62.66	63.73	78.83
Mombasa	67.25	69.75	73.33	11.92	12.52	14.31	42.92	72.97	75.12	82.27
Murang'a	72.08	73.71	75.76	23.21	-	2.05	47.50	67.16	71.67	55.97
Nairobi	97.11	94.29	99.00	28.29	1.18	2.36	43.37	78.26	77.79	80.93
Nakuru	74.33	75.25	75.25	26.62	-	1.54	30.71	68.19	72.95	76.27
Nandi	86.00	86.00	86.00	35.04	-	-	17.20	84.09	83.61	82.81
Narok	48.47	48.86	48.86	20.85	-	3.91	21.89	62.55	64.50	75.58

Nyamira	75.49	74.06	78.83	19.11	-	-	9.56	74.53	75.25	81.22
Nyandarua	62.35	63.43	73.64	12.18	6.99	2.15	34.83	71.81	68.80	75.61
Nyeri	78.63	74.33	84.16	16.38	14.13	-	36.37	73.71	70.64	74.94
Samburu	39.31	46.07	46.07	8.19	-	-	9.83	31.94	30.71	45.05
Siaya	70.71	66.89	81.22	28.67	7.17	4.78	27.95	72.62	74.06	74.85
Taita Taveta	74.53	78.83	82.42	19.11	-	-	40.40	80.27	86.00	86.00
Tana River	86.00	86.00	57.33	57.33	7.17	-	28.67	68.80	71.67	81.22
Tharaka Nithi	53.75	56.44	53.75	35.83	2.69	2.69	43.00	60.20	61.81	69.88
Trans Nzoia	74.53	71.67	71.67	19.11	-	14.33	20.07	71.67	86.00	86.00
Turkana	77.40	75.25	75.25	23.89	14.33	-	-	77.40	78.83	81.22
Uasin Gishu	78.92	78.41	79.68	21.92	18.97	2.53	10.12	77.91	79.68	82.63
Vihiga	82.56	79.55	86.00	28.67	4.30	8.60	29.24	82.56	81.70	71.67
Wajir	76.17	76.79	73.71	12.29	-	6.14	56.51	63.89	73.71	61.43
West Pokot	86.00	86.00	86.00	-	-	-	-	78.63	79.86	83.95

Source: Authors' calculations

Appendix 5: Financial inclusion

County:	Access of savings and credit facilities,		Financial Innovation and Fintech		Credit guarantee scheme	
	No. of saving institutions	No. of credit access institutions	Understanding	Use	Awareness	Use
Baringo	-	12.90	51.60	14.85	4.30	22.93
Bomet	-	-	54.73	23.45	21.50	28.67
Bungoma	1.08	3.23	47.30	19.01	12.90	30.10
Busia	39.09	33.23	28.67	22.65	7.82	39.09
Elgeyo Marakwet	-	5.86	52.12	22.48	15.64	31.27
Embu	3.23	5.38	58.77	25.70	20.43	35.83
Garissa	2.39	7.17	6.37	7.60	-	28.67
Homa Bay	7.59	8.86	64.12	30.03	10.12	13.50
Isiolo	43.00	64.50	57.33	4.89	21.50	57.33
Kajiado	10.03s	5.73	38.22	24.24	11.47	36.31
Kakamega	12.90	15.05	22.93	22.05	10.75	36.31
Kericho	2.15	2.15	45.87	23.36	27.95	28.67
Kiambu	11.22	18.36	55.75	21.60	14.28	27.20
Kilifi	2.69	2.69	50.17	28.46	10.75	53.75
Kirinyaga	2.15	4.30	50.17	21.99	1.08	12.90
Kisii	4.66	3.73	63.39	26.10	5.59	21.13
Kisumu	29.97	28.02	24.32	20.40	13.03	31.27
Kitui	4.78	2.39	-	2.17	-	35.04
Kwale	-	2.39	50.96	25.08	-	19.11
Laikipia	8.60	7.17	63.07	28.34	7.17	13.38

Lamu	-	21.50	-	9.77	-	-
Machakos	2.26	1.13	54.32	23.09	3.39	30.18
Makueni	-	1.34	48.38	20.64	2.69	37.63
Mandera	-	2.69	46.58	25.29	-	-
Marsabit	-	8.60	-	14.85	8.60	11.47
Meru	2.53	12.65	-	8.51	-	3.37
Migori	0.77	3.07	50.17	29.88	8.45	18.43
Mombasa	1.79	-	45.29	26.49	7.15	28.60
Murang'a	-	7.17	58.70	26.11	25.60	49.14
Nairobi	3.52	8.22	68.90	31.12	19.96	40.71
Nakuru	19.20	21.50	24.57	23.42	5.38	24.57
Nandi	2.39	7.17	41.41	19.00	26.28	38.22
Narok	-	-	59.94	21.59	3.91	7.82
Nyamira	-	-	65.30	25.63	4.78	12.74
Nyandarua	2.69	8.60	56.62	17.30	2.15	12.18
Nyeri	5.53	8.60	52.42	22.95	-	18.84
Samburu	21.50	15.36	-	13.40	6.14	8.19
Siaya	9.56	31.06	35.04	15.85	2.39	9.56
Taita Taveta	-	7.17	28.67	15.15	3.58	14.33
Tana River	21.50	-	-	11.40	-	57.33
Tharaka Nithi	9.41	13.44	8.96	9.89	1.34	17.92
Trans Nzoia	-	3.58	52.56	21.01	-	4.78
Turkana	-	-	43.00	24.11	7.17	23.89
Uasin Gishu	1.26	-	47.22	15.69	8.85	26.98
Vihiga	19.35	17.20	22.93	20.62	8.60	22.93
Wajir	-	-	61.43	23.59	3.07	40.95
West Pokot	3.07	-	61.43	11.17	6.14	24.57

Source: Authors' calculations

Appendix 6: Technical capacity

	Training				Innovation	Patenting	Coping with new technology	
Counties	% of MSEs trained	Training Areas	Duration	Cost	% MSEs with innovations	% MSEs with patented innovations	Understanding of technological and innovation trends, and adaption of new technology	Adaption of new technology.
Baringo	-	-	-	-	1.14	0.30	11.47	4.30
Bomet	0.40	3.14	4.51	54.93	-	0.04	5.21	7.82
Bungoma	0.76	6.91	4.13	55.62	-	0.12	8.60	4.30
Busia	0.96	25.11	8.85	68.66	15.45	0.71	41.70	9.77
Elgeyo Marakwet	0.18	3.14	2.00	31.39	-	0.40	5.21	1.95
Embu	0.82	14.67	9.09	47.87	1.99	0.33	43.00	12.90
Garissa	0.08	1.92	1.84	19.18	0.53	0.49	9.56	-

Homa Bay	0.55	13.16	9.37	46.82	0.43	0.19	16.87	-
Isiolo	0.38	17.26	22.04	83.37	-	1.63	57.33	-
Kajiado	6.06	8.06	7.10	63.30	6.41	6.47	66.89	31.53
Kakamega	0.27	5.75	1.84	25.90	5.62	0.31	36.31	10.75
Kericho	0.85	6.91	2.57	43.16	-	0.53	5.73	4.30
Kiambu	0.51	8.97	5.03	48.81	0.32	0.36	51.67	12.24
Kilifi	0.40	4.32	5.28	29.67	1.80	0.70	39.42	8.06
Kirinyaga	0.83	6.04	3.40	59.93	1.42	0.57	17.20	5.38
Kisii	0.53	6.71	4.76	52.20	-	0.12	19.84	5.58
Kisumu	0.49	9.94	4.23	43.78	4.16	0.66	47.78	6.52
Kitui	1.26	17.26	10.82	86.32	-	-	-	-
Kwale	0.29	7.67	4.08	28.77	7.56	1.42	50.96	21.50
Laikipia	0.66	10.36	12.98	55.98	2.46	0.95	30.58	2.87
Lamu	-	-	-	-	-	-	-	-
Machakos	0.55	8.18	5.22	53.33	0.31	0.28	34.70	15.84
Makueni	0.18	8.63	3.56	43.16	1.06	0.39	43.00	16.13
Mandera	0.43	12.95	7.81	63.02	-	-	-	-
Marsabit	0.44	27.62	7.35	51.79	-	1.25	17.20	-
Meru	0.14	2.03	2.38	20.31	-	-	8.43	2.53
Migori	0.29	3.70	3.54	27.39	3.42	0.80	39.93	4.61
Mombasa	0.56	8.58	6.54	55.42	3.11	1.45	57.20	23.24
Murang'a	0.27	10.69	6.21	34.94	2.84	0.45	27.30	8.19
Nairobi	0.91	18.79	9.30	89.25	1.06	1.11	46.41	15.36
Nakuru	0.24	12.33	3.80	49.32	0.93	0.14	53.24	18.43
Nandi	0.74	5.75	3.88	47.95	-	1.31	31.85	4.78
Narok	0.23	3.14	2.67	23.54	-	0.06	10.42	3.91
Nyamira	0.45	8.63	3.88	43.16	0.43	0.19	7.96	-
Nyandarua	0.31	8.63	7.30	30.68	1.15	0.46	20.78	4.84
Nyeri	0.65	5.92	5.51	38.67	0.99	0.39	11.47	6.14
Samburu	1.40	9.86	4.98	36.99	-	0.29	8.19	3.07
Siaya	0.10	-	1.63	19.18	2.13	0.79	54.15	2.39
Taita Taveta	0.06	8.63	6.73	39.56	4.15	1.06	66.89	14.33
Tana River	-	-	-	-	-	-	-	-
Tharaka Nithi	0.34	8.63	4.82	31.02	-	-	-	-
Transnzoia	0.18	-	3.06	57.54	-	-	-	-
Turkana	0.18	8.63	4.29	57.54	-	-	9.56	-
Uasin Gishu	0.13	6.09	5.83	45.12	-	0.31	15.18	1.26
Vihiga	0.36	1.73	3.49	51.79	3.91	0.73	63.07	25.80
Wajir	0.39	2.47	1.84	24.66	2.45	1.53	53.24	3.07
West Pokot	0.45	-	-	36.99	-	-	-	-

Continued: Technical capacity

Counties	Knowledge and skills gaps		MSEs. Survival Rate	Access to Incubation services		
	Technical skills gaps	Cost of training	% of MSEs that have closed	Procedures	Time taken	Cost
Baringo	17.26	83.70	50.74	17.20	25.80	34.40
Bomet	57.54	50.16	38.01	6.25	7.82	7.82
Bungoma	70.33	77.46	29.15	24.08	25.80	30.10
Busia	2.62	57.51	53.05	9.38	15.64	15.64
Elgeyo Marak-wet	23.54	69.43	84.71	-	-	-
Embu	33.57	65.86	54.88	6.95	2.48	4.96
Garissa	-	83.04	34.32	7.67	12.79	12.79
Homa Bay	20.88	42.10	59.24	14.17	20.25	18.56
Isiolo	-	83.04	-	-	-	-
Kajiado	53.12	76.90	35.31	-	-	-
Kakamega	4.80	51.68	59.21	5.16	7.17	10.51
Kericho	40.28	59.22	67.52	-	-	-
Kiambu	29.71	82.36	59.71	12.24	10.20	12.24
Kilifi	43.16	75.66	21.46	7.28	6.07	8.09
Kirinyaga	43.92	64.81	58.24	2.58	-	-
Kisii	14.50	67.18	47.00	-	3.73	3.73
Kisumu	26.92	58.54	66.68	5.73	7.82	7.82
Kitui	-	83.04	10.75	7.64	9.56	9.56
Kwale	57.54	78.43	64.92	12.79	15.98	10.66
Laikipia	38.36	48.53	62.16	20.64	22.93	19.11
Lamu	-	83.04	-	-	-	-
Machakos	39.37	82.35	31.40	-	-	-
Makueni	40.28	80.42	36.51	-	-	-
Mandera	33.57	63.55	62.56	-	-	-
Marsabit	11.51	83.48	33.11	-	-	-
Meru	1.80	83.11	9.58	6.87	6.87	11.45
Migori	22.52	53.68	38.82	17.20	7.68	12.29
Mombasa	61.97	80.60	27.53	-	-	-
Murang'a	24.94	56.31	56.42	-	-	-
Nairobi	23.75	70.76	41.30	11.27	7.05	12.53
Nakuru	11.72	59.16	42.41	1.84	1.54	3.07
Nandi	49.32	72.11	47.10	34.40	23.89	22.30
Narok	14.39	66.79	53.49	-	-	-
Nyamira	30.99	64.63	50.03	7.64	9.56	9.56
Nyandarua	54.16	61.64	38.12	19.78	13.98	22.22
Nyeri	58.50	69.75	38.72	2.95	4.91	4.91
Samburu	8.22	83.35	12.35	4.91	12.29	24.57
Siaya	22.38	56.94	55.80	23.44	11.72	19.54
Taita Taveta	43.16	70.47	42.57	-	-	-
Tana River	-	83.04	57.04	-	-	-

Tharaka Nithi	3.84	83.19	46.86	5.38	-	3.58
Transnzoia	62.34	84.68	71.20	-	-	-
Turkana	86.32	73.42	70.21	-	-	-
Uasin Gishu	49.87	65.85	60.37	8.09	5.06	10.12
Vihiga	2.88	66.00	51.10	38.75	19.38	38.75
Wajir	52.75	53.90	48.16	19.66	24.57	20.48
West Pokot	52.75	57.73	46.31	19.66	24.57	20.48

Source: Authors' calculations

Appendix 7: Governance and regulatory framework

Counties	Licensing and issuance of permits		Corruption and governance		Crime and public security			Self-regulation			Participation in policy and regulatory framework formulation
	Costs	Time taken	Frequency of	Amount lost	Prevalence of crime	Distance to nearest police station	Time taken to nearest police station	Procedures	Time taken	Cost	
Baringo	50.43	41.28	34.40	51.60	80.27	82.56	81.70	30.58	86.00	86.00	-
Bomet	71.95	66.45	5.21	7.82	86.00	68.80	70.36	56.46	86.00	86.00	21.89
Bungoma	54.22	36.55	20.07	35.12	78.83	70.52	68.80	53.03	83.85	86.00	7.74
Busia	46.51	57.07	23.45	40.39	72.97	64.11	62.55	39.96	86.00	86.00	26.58
Elgeyo Marakwet	58.97	53.95	23.45	39.09	86.00	67.24	66.45	40.83	82.09	86.00	15.64
Embu	51.31	27.09	47.30	60.20	74.53	72.24	72.03	53.99	86.00	86.00	4.30
Garissa	60.25	64.98	6.37	11.15	73.26	59.24	57.33	50.96	86.00	86.00	15.29
Homa Bay	42.33	26.79	38.76	26.96	80.89	70.78	68.25	56.17	91.00	91.00	6.07
Isiolo	-	-	-	71.67	86.00	51.60	64.50	28.67	86.00	86.00	-
Kajiado	14.09	17.20	49.69	51.60	72.62	63.07	63.07	41.41	86.00	86.00	17.20
Kakamega	52.72	35.83	19.11	35.36	67.84	77.97	75.97	46.50	86.00	86.00	6.31
Kericho	72.44	49.88	14.33	22.93	86.00	73.96	73.10	61.16	86.00	86.00	17.20
Kiambu	39.28	31.88	40.87	64.71	84.46	67.84	71.52	64.94	94.00	94.00	15.53
Kilifi	44.64	52.68	43.00	32.25	86.00	58.05	67.19	15.53	86.00	86.00	15.05
Kirinyaga	54.66	54.61	38.70	63.07	81.70	62.78	55.90	48.26	86.00	86.00	6.88
Kisii	69.67	44.27	32.24	34.10	81.84	76.63	78.12	61.59	93.00	96.72	11.20
Kisumu	46.78	30.23	17.37	34.75	68.63	74.01	73.62	48.36	86.00	86.00	7.30
Kitui	40.49	38.22	-	-	86.00	53.51	57.33	53.09	86.00	86.00	5.73
Kwale	7.29	18.16	63.70	63.70	82.81	64.98	64.50	32.91	86.00	95.56	1.91
Laikipia	56.26	38.41	45.87	58.29	80.27	73.39	68.80	54.79	83.13	80.27	4.59
Lamu	80.17	86.00	57.33	-	86.00	34.40	64.50	28.67	86.00	86.00	-
Machakos	32.99	31.68	33.19	35.46	64.88	57.03	55.45	36.21	88.26	86.00	8.15
Makueni	28.70	31.71	50.17	37.63	59.13	52.68	52.41	27.47	86.00	86.00	7.53

Mandera	35.35	32.25	75.25	60.92	71.67	51.60	59.13	69.28	80.63	86.00	6.45
Marsabit	29.15	51.60	-	25.80	45.87	37.84	38.70	42.04	77.40	103.20	6.88
Meru	52.30	59.69	1.69	10.96	80.94	67.79	70.82	50.03	83.47	86.00	20.24
Migori	65.91	48.53	29.69	25.60	80.88	61.43	62.96	58.02	86.00	89.07	9.83
Mombasa	40.50	49.36	40.54	48.88	76.31	50.08	55.44	39.74	93.00	93.00	5.72
Murang'a	32.76	25.80	49.14	49.83	76.44	71.26	68.60	51.87	88.05	86.00	14.74
Nairobi	30.92	28.76	48.71	58.14	92.71	85.80	89.57	64.95	96.64	99.00	12.26
Nakuru	29.15	19.35	9.21	17.40	76.79	64.50	67.57	60.06	86.00	86.00	12.90
Nandi	40.00	25.80	19.11	38.22	86.00	77.40	80.63	54.15	76.44	86.00	26.76
Narok	62.94	53.95	28.67	27.36	83.39	62.55	64.50	45.17	86.00	86.00	21.89
Nyamira	53.53	36.31	30.26	23.09	86.00	72.62	70.47	56.27	86.00	86.00	23.89
Nyandarua	30.72	33.11	48.02	55.54	83.13	69.23	63.96	53.03	84.93	86.00	12.47
Nyeri	62.97	58.73	36.86	52.01	84.36	80.10	76.79	47.50	86.00	86.00	13.27
Samburu	32.28	24.57	-	16.38	61.43	49.14	52.21	65.52	86.00	86.00	14.74
Siaya	34.50	25.80	47.78	50.96	82.81	78.36	71.67	63.70	86.00	86.00	5.73
Taita Taveta	12.15	14.33	52.56	57.33	71.67	65.93	64.50	41.41	86.00	86.00	2.87
Tana River	52.96	54.47	-	4.78	86.00	63.07	64.50	54.15	86.00	86.00	-
Tharaka Nithi	36.71	38.70	1.79	5.38	73.46	70.95	72.56	44.19	86.00	80.63	3.23
Trans Nzoia	65.84	57.33	33.44	71.67	86.00	83.13	82.42	43.00	86.00	86.00	20.07
Turkana	67.05	67.37	9.56	14.33	76.44	86.00	86.00	57.33	86.00	71.67	11.47
Uasin Gishu	42.19	42.49	20.24	32.04	86.00	72.85	74.62	53.40	83.47	80.94	4.05
Vihiga	50.29	33.54	14.33	17.20	65.93	72.24	73.10	44.91	86.00	86.00	10.32
Wajir	20.62	13.51	20.48	28.67	69.62	56.51	73.71	66.89	86.00	86.00	31.94
West Pokot	72.67	52.83	57.33	86.00	81.90	71.26	73.71	66.89	86.00	86.00	14.74

Source: Authors' calculations

Appendix 8: Risk preparedness and management

County	Risk preparedness and management		Knowledge and uptake of social security			
	% of MSEs Aware	% of MSEs Taken measures	% of MSEs with knowledge on importance of business insurance	% of MSEs with knowledge on importance of health insurance	% of MSEs that have taken insurance for their business	% of MSEs that have taken insurance health
Baringo	20.64	13.76	24.08	37.84	3.44	17.20
Bomet	43.78	9.38	32.84	56.29	3.13	56.29
Bungoma	32.68	21.50	33.54	36.98	17.20	35.26
Busia	25.02	14.07	21.89	37.53	6.25	29.71
Elgeyo Marakwet	29.71	10.95	23.45	37.53	9.38	21.89
Embu	21.50	12.90	26.66	55.04	0.86	43.86
Garissa	15.29	15.29	7.64	24.84	1.91	1.91
Homa Bay	15.19	13.16	20.25	27.33	7.09	25.31
Isiolo	51.60	51.60	-	-	-	-

Kajiado	56.19	30.96	42.43	68.80	8.03	65.36
Kakamega	48.16	12.04	51.60	59.05	2.87	44.72
Kericho	32.68	17.20	24.08	51.60	15.48	37.84
Kiambu	33.45	15.50	31.00	58.74	11.42	45.69
Kilifi	58.05	15.05	58.05	53.75	2.15	36.55
Kirinyaga	41.28	17.20	38.70	65.36	13.76	51.60
Kisii	18.64	16.41	6.71	54.44	17.90	51.46
Kisumu	41.18	13.03	38.57	58.38	7.82	42.22
Kitui	13.38	13.38	24.84	28.67	24.84	7.64
Kwale	38.22	15.29	30.58	51.60	-	53.51
Laikipia	45.87	36.69	48.16	57.33	32.11	50.45
Lamu	-	-	86.00	-	-	-
Machakos	65.18	7.24	47.98	70.61	-	54.32
Makueni	53.75	11.83	64.50	70.95	-	54.83
Mandera	38.70	17.20	38.70	66.65	19.35	58.05
Marsabit	30.96	13.76	17.20	47.30	8.60	8.60
Meru	13.15	14.16	8.09	27.32	5.06	4.05
Migori	24.57	22.73	15.97	34.40	5.53	27.64
Mombasa	61.49	20.02	52.91	78.66	7.15	42.90
Murang'a	17.20	8.19	27.03	54.06	4.10	44.23
Nairobi	39.46	27.25	40.40	81.74	7.52	62.95
Nakuru	52.21	6.76	41.16	70.03	1.84	51.60
Nandi	36.31	22.93	28.67	43.96	19.11	30.58
Narok	12.51	12.51	6.25	32.84	-	28.15
Nyamira	24.84	20.07	15.29	47.78	-	47.78
Nyandarua	33.11	22.79	23.65	41.28	6.45	27.09
Nyeri	44.72	19.17	34.40	54.06	8.85	33.42
Samburu	7.37	7.37	22.11	9.83	4.91	4.91
Siaya	9.56	9.56	28.67	30.58	9.56	19.11
Taita Taveta	28.67	8.60	5.73	43.00	-	37.27
Tana River	11.47	11.47	22.93	22.93	22.93	22.93
Tharaka Nithi	9.68	8.60	15.05	31.18	3.23	10.75
Trans Nzoia	0.40	0.10	28.67	45.87	8.60	40.13
Turkana	20.07	11.47	22.93	22.93	11.47	17.20
Uasin Gishu	33.39	22.26	37.44	42.49	26.31	36.42
Vihiga	49.88	8.60	48.16	56.76	8.60	39.56
Wajir	31.94	12.29	7.37	41.77	2.46	27.03
West Pokot	24.57	19.66	27.03	36.86	19.66	17.20

Source: Authors' calculations

Kenya Institute for Public Policy Research and Analysis
Bishops Garden Towers, Bishops Road
P.O. Box 56445-00200, Nairobi, Kenya
Tel: +254 20 4936000; +254 20 2719933/4
Email: admin@kippra.or.ke
Website: http://www.kippra.or.ke

ISBN 978 9966 817 80 8