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Thinking Policy Together

Enhancing Effectiveness of Kenya's Excisable Goods Management System

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Introduction

Illicit trade in tobacco products presents significant public policy challenges due to health risks associated with increased access to tobacco products. Further, it contributes to loss of tax revenue and financing of organized crimes, thus calling for innovative strategies to combat its existence or spread. Kenya's Excisable Goods Management System (EGMS) represents an example of a technology-based track and trace system that has been implemented in Kenya since November 2013. The EGMS Regulation requires all excisable goods, except motor vehicles, to be affixed with 'intelligent' digital excise stamps that capture product information such as manufacturer, brand, date of manufacture and date of release into the market. The stamp is in turn supported by an electronic database containing codes of all the stamps dispensed into the market and can be used to differentiate licit from illicit goods. Kenya's EGMS has capabilities that facilitate use of digital excise stamps to verify products along the supply chain, giving the end consumers an opportunity to establish the authenticity of products through a quick response code using a smartphone application. The EGMS system has three key components: factory flow labelling and verification system; hand-held scanner that allows operators in the supply chain to verify authenticity of the product; and smartphone application that allows end consumer verify product authenticity.

Tobacco products such as cigarettes and cigars are highly prone to illicit trade due to ease of portability and higher profit margins. Recognizing this challenge and the adverse health consequences of increased access to tobacco and tobacco products, the World Health Organization (WHO) Framework Convention on Tobacco Control; and its Protocol to Eliminate Illicit Trade in Tobacco Products require the tracking and tracing of tobacco products. Kenya signed the Protocol on 29th May 2013 and ratified it on 4th May 2020. The Protocol came into force on 25th September 2018. While Kenya's implementation of EGMS for cigarettes and cigars commenced in 2013 and was therefore ahead of the WHO Protocol, an independent assessment of its implementation efficiency, challenges and successes has been largely deficient.

The introduction of the EGMS was expected to have immediate impact on "recorded/declared production" of cigarettes and cigars. Fundamentally, the increase in declared production is expected to result from the EGMS' design features of capturing and relaying real time production levels within firms to a central database managed by the Kenya Revenue Authority (KRA). This capability of EGMS together with the stationing of KRA officers at firms that generate the most excise revenue was expected to curtail under-declaration of actual production levels of cigarettes and cigars. Additionally, the rollout of EGMS, supported by enhanced market surveillance by KRA officers and authentication capabilities along the supply chain was expected to address other forms of illicit trade, including counterfeits and cross border smuggling due to increased possibilities of detection.

The implementation of the EGMS was expected to not only increase the level (i.e. average or mean) of excise revenue but also alter the trend (i.e. slope or growth rate) of excise tax revenue increases for the targeted excisable goods such as cigarettes and cigars. This was plausibly to be accompanied by a decline in the volume of illicit products. If there is no significant increase in excise revenue following the introduction of the EGMS, this could be indicative of missed opportunities to maximize the impact of the EGMS on excise revenue. It could further suggest the need to address factors constraining the successful implementation of the system.

This policy brief focuses on the effectiveness of EGMS with regard to its impact on cigarette and cigars excise revenue and control of related illicit trade in Kenya. The brief also focuses on the implementation challenges of the system. It is based on the KIPPRA study "Appraisal of Kenya's Excisable Goods Management System: A Case of Cigarettes and Cigars Excise Revenues" that assessed the impact of the EGMS interventions on monthly cigarette and cigars real excise revenue.

Effects of EGMS

Implementation of the EGMS contributed to an effect that occurred at a fixed point in time (or a pulse effect) and shows evidence of a positive effect on the post-intervention trend of real excise revenue for cigars and cigarettes relative to its pre-intervention trend. However, a level change in revenue is not supported by the results.

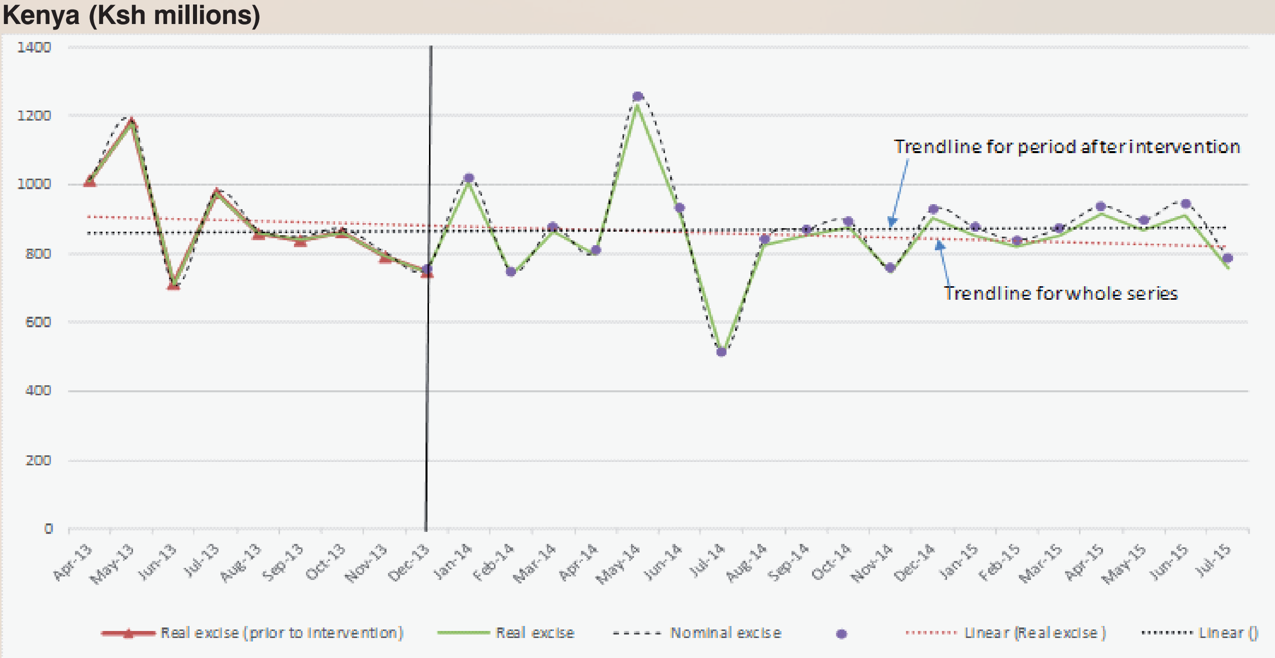
With respect to illicit trade in cigarettes and cigars, the one-off jump in declared production in 2014 suggests waning levels of illicit tobacco products. The stifled effects of the EGMS impact may be attributed to its implementation challenges. Some of the system-related challenges reported by the firms include system down time and rigidity and high compliance costs. Figure 1 shows the line graphs of nominal and real values of excise revenues for cigarettes and cigars. The graph also includes the trends of these values. Both the nominal and real values exhibit a similar pattern over time characterized by large variations in values at specific points in time.

Besides the increase in realized excise revenues in the immediate period after December 2013 (represented by the vertical line), there are other months, within the range of values analysed, that also exhibit relatively abrupt changes in real excise revenue. One of the notable changes in the series is the spike in May 2014, which does not seem to be related to any specific event at the time. A plausible explanation of the spike is that excise revenue tends to increase in months leading to the end of each financial year (which ends in the month of June). The rise in realized revenue is perhaps associated with the intensified efforts by the revenue authority to meet the annual revenue targets and efforts by the firms to meet compliance deadlines. This increase is observable for the month of May for the years 2013 and 2014. The relatively large dip in realized revenue in July 2014 is explained by the relative slowdown in tax mobilization efforts that would be reasonably associated with a new financial year.

The starting average level of real excise revenue is estimated at Ksh 949 million and this appears to decline significantly every year by an average of Ksh 22 million within the analysis period. The pulse effect is realized months post EGMS intervention (i.e. in January 2014). Intuitively, this coincides with a month lag when excise revenues collected are remitted to KRA. The pulse effect could be associated with intensified enforcement efforts at the time the EGMS was implemented.

The change in level (i.e. mean or average) was not statistically significant but the trend (i.e. slope or growth rate) effect is significant and positive. The findings suggest that there has been a significant increase in the monthly real excise revenue trend (growth) by Ksh 22.4 million that may be attributed to implementation of the EGMS. These results suggest that the implementation of the EGMS positively altered

Figure 1: Monthly nominal and real excise revenue for cigarettes and cigars (April 2013 to July 2015) in Kenya (Ksh millions)



Data sources: Nominal values are from KRA; real values are adjusted using the monthly cigarettes consumer price index from the Kenya National Bureau of Statistics the trend or growth of the cigarettes and cigars real excise revenue in the post-intervention period relative to the pre-intervention period, without significantly altering the level of this real excise revenue at the intervention point. The findings of the intervention analysis suggest that the introduction of the EGMS in November 2013 may have resulted in an increase in real excise revenue of cigarettes and cigars at a point in time (capture by the increase in real revenues in January 2014).

The system's more effective tracking ability of production volumes of excisable goods, including cigarettes, has reduced the extent of possible under-declaration of production levels. Evidence of this is the large increase in the number of declared cigarettes and cigars, which grew by over 21% in 2014 – the year immediately after which the system was implemented. This is the largest annual increase in production levels for cigarettes since the introduction of excise taxes in the mid-1980s. This observation was also consistent with the analysis results that captured February 2014 as a month that recorded a significant increase in real excise tax revenue.

Lessons from other Countries

The reviews of Brazil's and Turkey's track and trace system along various thematic issues, including policy context, products coverage, unique traceability features, policy and administrative challenges, and impact on illicit trade shows the importance of the following approaches:

(i) Gradual roll out of the system and winning the confidence of the industry. The two countries reviewed (Brazil and Turkey) commenced with track and trace of few products such as tobacco, gradually expanding to other products prone to illicit trade.

(ii) Use of a combination of overt (explicit) and covert (concealed) features to provide complementary features in detection of illicit products along the product distribution chain. Visible features that distinguish tobacco products for use domestically and those destined for exports is imperative to mitigate products destined for exports being diverted for local consumption.

(iii) Complementary efforts in inter-agency collaborations, locally and across jurisdictions enhance the effectiveness of track and trace system. Priority countries for inter-agency collaborations are usually those that are either source or destination for products prone to illicit trade, especially bordering jurisdictions. For example, cooperation agreement initiated between the Brazilian and the Paraguayan governments on areas of sharing both public and confidential data related to illicit trade proved to be useful in cross border flows of illicit tobacco. In Turkey, there is established close cooperation among the revenue authority, and the ministries in charge of justice, economy, foreign affairs and internal affairs.

(iv) Policy initiatives to increase fines on illicit trade corroborate the effectiveness of track and trace system. This was one of the initial challenges faced by Turkey, as slow prosecution and low penalties dampened the gains from introduction of track and trace system.

(v) The review also suggests the importance of independent estimates of illicit trade in tobacco products. While there is a general indication that illicit trade in tobacco products decline after introduction of track and trace system largely based on observable variables such as level of legal sales of licit cigarettes and tobacco tax revenues, the exact magnitude by which illicit trade in tobacco products decline remains a challenge.

Recommendations

Even as KRA gears to expand the system to other goods, a key recommendation to improve the implementation of the EGMS is the need to work out compliance avenues that are more convenient. These include upgrading online capability of the system and enhanced collaboration among relevant government agencies including the Kenya Revenue Authority, the Anti-counterfeit Authority, and the Kenya Bureau of Standards, especially on efforts towards enhanced market surveillance of product stamps and control of illicit trade. The initiative can leverage on the collaborative platform articulated in the National Action Plan and Implementation Framework to Combat Illicit Trade 2019-2022.

An important initiative is to leverage on capabilities of EGMS and the immense opportunities articulated in the National Action Plan and Implementation Framework to Combat Illicit Trade 2019-2022. It would be crucial to address the challenge posed by the need to affix various stamps by individual agencies (such as KEBS and KRA) through inter-agency cooperation in the use of product marks.

The EGMS seems to have had positive impacts on illicit trade. This is through its impact in increasing the declared production in the year 2014. The comparative review of the experience of Brazil and Turkey presents several lessons for Kenya. Among the key lessons are the importance of complementary and prioritized efforts in inter-agency collaborations, locally and across jurisdictions to enhance the effectiveness of track and trace system. In Turkey policy initiatives to increase fines on illicit trade led to gains in dealing with the vice.

The tax authority can avoid possible short-term effects by being consistent in implementing comprehensive controls and sustain its initial investment into enforcement. The system can benefit from a continuous review of its performance focusing on its efficacy to deal with probable metamorphosis of tax evasion. In this respect, it shall also be important to put in place punitive penalties that can deter illicit trade and provide estimates of the size of the illicit market in Kenya.

The ongoing collaboration efforts within the East African Community (EAC) should be also deepened considering illicit trade spans across borders.

Endnotes

1. The Regulation was initially issued through Legal Notice No. 110 of 2013 as the 'Customs and Excise (Excisable Goods Management System) Regulations, 2013. The initial Regulation was repealed and replaced by the Legal Notice No. 53 of 2017 as the Excise Duty (Excisable Goods Management System) Regulations, 2017.
2. World Bank (2019), Confronting Illicit Tobacco Trade: A Global Review of Country Experiences. Washington D.C: World Bank.
3. United Nations (2021), Treaty Collection: Chapter IX, Health – A Protocol to Eliminate Illicit Trade in Tobacco Products. Accessed from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IX-4-a&chapter=9&lang=en on 9th January 2021.
4. Change in level reflects the difference in time point of interest relative to the predicted pre-intervention trend. Change in slope reflects difference between post-intervention slope and pre-intervention slope.

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About KIPPRA Policy Briefs

KIPPRA Policy Briefs are aimed at a wide dissemination of the Institute's policy research findings. The findings are expected to stimulate discussion and also build capacity in the public policy making process in Kenya.

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