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Evaluation of the Capacity of State Regulatory Agency to Revive Farming, a Policy Perspective of the Sugar directorate and Sugar cane farming in Kenya

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ABSTRACT

This study investigated the capacity of the Sugar directorate the regulatory agency of Kenya's sugar subsector to revive sugarcane farming in the country. It was based on a cross sectional survey design and purposive sampling techniques that enabled engagement of the regulators in management positions as key informants. Key informant guides and questionnaires were used to collect data which was then analyzed descriptively using measures of central tendency and inferentially using t-test. On the bases of the attributes of strength and exploitable opportunities for the directorate, the study established that the directorate has statistically significant capacity to revive sugar cane farming in Kenya. The key attributes of its strength as identified by the study range from the authority to license private mills, authority to set and review sugarcane prices, provision for adoption of COMESA Standards down to the authority to control sugar importation. The key attributes of exploitable opportunities range from the chance to seek for the intervention of the presidency in line with Articles 113 and 115 of the Kenya Constitution 2010, chance to intensify border and market surveillance services in line with the Agriculture and Food Authority Act of 2012, the chance to enhance stakeholder linkages and networks down to the chance to upscale its strategic plan in line with the Public Finance Management Act of 2023. According to the study, to revive sugar cane farming in Kenya the directorate should enhance its adherence to the attributes of strengths and develop strategies for exploitation of the identified opportunities.

Keywords: *Attributes of Strengths, Contribution to Capacity, Exploitable Opportunity, Revival of Sugar Cane Farming, Sugar Directorate*

1. INTRODUCTION

In this era of economic challenges and systems of regulatory state, performance of governments and income generating organizations depends on their capacity to regulate economic production by matching production costs to the benefits (Kambanda, 2013, Changwony, 2012, Lodge (2001). Regulation refers to state interventions in either or both public and private sectors that steer a state into achievement of predetermined public goals (Changwony, 2012). Regulation is a complex process that involves target setting , rulemaking , standard setting and monitoring, information gathering, security inspection, audit , enforcement, behavior modification and application of reward and sanctions whenever necessary (Hood et al., 2001).

The purpose of economic regulatory systems or services is prevention of market failures especially the ones that prevent the markets from operating in the best interest of the public (Kombo et al., 2023). According to Kambanda (2013) the regulatory goals of virtually all states in the world include improvement of economic efficiency, promotion of competition and protection of consumers. In the business world, regulatory interventions enhance markets and often protect stakeholders who might otherwise suffer in unregulated circumstances (Cough et al., 2017).

The capacity of a state to regulate its economy is reflected in its laws and subsequently activities (cough, Pereira & Gomide, 2017). In line with this, from the onset of commercial sugar cane farming Kenya as a state has always had laws and regulatory mechanisms for sugarcane farming and sugar trade. This state of affairs originated from the fact that from the onset Kenya satisfies the national sugar demand by supplementing domestic production with importation save for 1978 (Government of Kenya, 2019). Circumstantially, in Kenya domestic production is ever threatened by the temptation of over- importation especially the over- importation of cheaper sugar from states that are relatively lower cost producers (Onyango et al., 2018).

According to Government of Kenya (2019) in the perspective of production costs and context of Kenya's domestic sugar market there is need for protection of the locally produced sugar from the cheapness of imported sugar. This is well articulated in the findings of Ton et al (2015) and Sugar Campaign for Change (2003) according to which the opportunities for the locally produced sugar in the Kenya market are continually getting constricted by relative cheapness of the sugar sourced from COMESA Member States and other countries. In fact, Kenya is an attractive destination for sugar sourced from regional and global markets due to high production cost, therefore the issue of relatively higher cost of domestic production justifies the rationale of the protective nature of the past and present regulatory interventions in the country (Kenya National Assembly, 2014).

Further to this, the criticality and rationale of the preventive regulatory interventions in sugar cane farming in Kenya is due to the fact that sugar cane farming is the source of 15 % Agricultural GDP (Kombo *et a l.* , 2023). In fact , the government declared sugar as a special produce due to its significant contribution to GDP (Onyango et al, 2018).Additionally Kenya's sugar subsector has both public and private components hence the need for state regulatory services for balancing purposes (Ton, Klerkx, De Grip & Rau, 2015).

Furthermore, in pursuit of trade and associated economic prosperity, Kenya's sugar subsector is economically integrated into World Trade Organization, Economic Partnership Agreement, Common Market for Southern and Eastern Africa (COMESA) protocol and into the East African Community . This is in accordance with Articles 2, 10 and 61 of the Kenya Constitution of 2010 (Ligami, 2015). The integration significantly increased the numeracy and mode of stakeholder engagements in sugar cane farming and subsequently the demand for regulatory services. In this perspective, the need to regulate sugar cane farming in Kenya is reflected in the fact that Kenya's domestic sugar subsector is too uncompetitive to survive in most integrated sugar market frameworks particularly in the COMESA market devoid of protective regulatory measures (COMESA, 2012).

In the context of economic partnerships, the need for regulatory measures for Kenya's sugar subsector is further reflected in the fact that Kenya's sugar market often suffers from false declaration with respect to the Rules of Origin of the COMESA protocol (Kombo et al., 2023). For example, according to Kenya Anticorruption Commission (2010) a lot of sugar from the open markets across the world often finds its way into the Kenyan market illegally. This mostly happens through companies that purport to be legally importing it from Egypt when in reality Egypt is a sugar deficient nation and therefore a net importer.

All over the world, the responsibility of the state in economic regulation is formulation, organization and reorganization of governance apparatus (Styhre, 2015). According to Kambanda (2013) economic regulation can be carried out through a range of organizations. This includes international organizations, parliaments, ministries, courts, local authorities, private sector organizations and agencies depending on the laws of the nation under consideration.

An agency is a structured organization, formally separated from the parent ministry that carries out public tasks at a national level on permanent basis, is staffed by public servants, financed by the state budget and is subject to public legal procedures (Christensen, 2005). Agencies are quasi – autonomous public organizations for distribution of public governance (Lægreid et al., 2003). Agencies have some autonomy from respective ministries in terms of policy and decision-making, personnel, financial ecosystem and managerial matters (Christensen, 2001). In practice, in most countries regulatory service is provided via a mixture of stakeholders and means which often include independent agencies, self-regulatory strategies and command control systems (Pollit et al., 2004).

In line with this, the Kenya government found it necessary to develop the state capacity to regulate the sugar subsector by engaging in agencification. The agencification process began with the establishment of the Kenya National Trading Corporation through Legal Notice No 32 of 1973. The corporation was then mandated through CAP 318 of the Agriculture Act to regulate the distribution and sale of sugar from the state owned mills (Wanyande, 2001). However, due to the dynamics of emerging issues in sugar cane farming, significant contribution of sugar cane farming in Kenya's economy, dynamics of sugar and sugar cane markets, the state of sugarcane crisis and the increasing demand for sugar the laws and regulatory services for Kenya's sugar subsector have significantly evolved through several transformations over time. Transformative interventions are reflected in the shift of regulatory responsibilities from the Kenya National Trading Corporation to Kenya Sugar Authority and then Kenya Sugar Board (Kenya Sugar Board, 2010).

According to Lodge (2001) successful transformation of any economic sector depends on the capacity of the state to regulate it. The capacity of a state to revive economic production is reflected in the capacity of the regulatory agencies to meet the set targets (Christensen, 2001). In line with this and following the failure of the Kenya Sugar Board to meet the performance targets of the time particularly at the moment when sugarcane farming was facing eminent collapse, the Kenya government replaced with the Sugar directorate as the new regulator. The establishment of the directorate was guided by the Agriculture Fisheries and Food Authority (AFA) Act No 13 of 2013 (Onyango et al., 2018).

The purpose of the directorate is revival of sugar cane farming as part of the bigger process of transforming the sugar subsector to the once vibrant and lucrative status (Government of Kenya, 2019). However, in spite of the fact that the Sugar directorate has so far been in operation for over a decade, Kenya is still under a state of sugar cane crisis. In fact, Kenya is increasingly becoming an attractive destination for sugar sourced from regional and global markets and even dumping of poor sugar. According to Kombo et al. (2023) in spite of the state of sugar cane crisis, revival of the otherwise shaky industry is feasible if the market failures are addressed through effective regulatory interventions. This is because occupying a risky position on the success-failure spectrum sugarcane is not yet one of the orphan crops in Kenya. In fact the government, millers and farmers are still keen on sugarcane farming except that they are questioning the state of regulatory crisis and the capacity of the Sugar directorate to revive the farming to the once vibrant and lucrative status. In view of these, this study investigated the capacity of the Sugar directorate to revive sugarcane farming to the once vibrant and lucrative status in the perspectives of the attributes of strength and exploitable opportunities.

II. METHODOLOGY

This study was based on a cross sectional survey design which enabled survey of the four stations of the Sugar directorate in Kenya. This action was based on the expert opinion of Kothari et al. (2010) according to whom survey approach enables coverage of large study areas. This was applicable in the study since the study covered the Republic of Kenya as a study area. Further in line with Kothari et al (2010), the study was based on cluster and purposive sampling techniques which enabled engagement of each of station of the Sugar directorate as a cluster. In each cluster the regulators in management positions were purposively engaged as key informants on census basis. The choice of census approach was informed by the expert recommendations of Kothari and Garg (2014) and Kothari (2010) according to which census approach is effective in the cases of social studies where the size of the target population is thirty or less. Pursuant to this design, the study was based on a sample size of 19 regulators purposively selected from all the four stations of the directorate across the country.

On the basis of the recommendations of Kothari et al (2010) about the process of factor analysis in social studies, the researcher identified attributes of strengths and indicators of unexploited opportunities as the measures of the capacity of the Sugar directorate to revive sugar cane farming. Questionnaires, interview and key informants guides were used for data collection on the basis of a likert scale that ranged from one to five (1-5). The data was then analyzed descriptively on the basis of means, STD deviation and STD error and then inferentially based on T-test at 95% confidence limit via version 26 of the Statistical Package for Social Sciences.

III. RESULTS & DISCUSSIONS

3.1. Evaluation of Capacity of the Sugar Directorate as Reflected in Attributes of Strengths

The study identified five different attributes of strength that had contribution to the capacity of the Sugar directorate to revive sugar cane farming in Kenya. This was done in a 5-point likert scale where: VS. = Very Small, S=Small, NS =Not Sure, B =Big, VB=Very Big. The findings were assessed using means (M), standard deviations (STD) and Standard Errors (SE). An assessment of the contribution each attribute to capacity of the Sugar directorate to revive sugar cane farming yielded the findings in the respective tables.

Table 1
Authority to License Private Mills

Attribute of strength	Contribution to Capacity of the Sugar Directorate							
	VS	S	NS	B	VB	Mean (μ)	STD (α)	SE
Authority to License private millers	5.26%	10.5%	10.5%	21.05%	52.63 %	4.12	0.533	0.221

As in Table 1 the biggest contributor was the issue of authority to license private mills. This authority is provided for by the Crops Act No 13 of 2013. This finding was reflected in a mean score (μ) of 4.12. The mean score is far above the sample mean (μ) or baseline of 3.00 (4.12>3.00) signifying big contribution to the capacity of the Sugar directorate to revive sugar cane farming in the country. The finding was attributed to the fact that in Kenya the private mills are very attractive to farmers in fact more attractive than the public mills. This is because the private mills offer comparatively higher prices for sugar cane, are timelier in delivery of agronomic and financial services to the farmers. This finding is in line with Christensen (2001) who established that in economic production effectiveness of production interventions depends on timeliness of financial services.

Further assessment of the findings revealed that a majority (52.6%) of the regulators felt that the authority to license private mills had very big contribution to the capacity of the Sugar directorate to revive sugarcane farming while 21.5% held the view that it had moderately big contribution. These findings were attributed to long serving regulators who had knowledge of the popularity or attractiveness of the private mills to farmers as manifested in the associated financial advantages. This finding is in line with the views of Waswa et al (2012) according to which financial income is the key determinant of commercial farming activities.

However, about 10.5% of the regulators are not sure if the authority to license private mills had any contribution to the capacity of the Sugar directorate to revive sugarcane farming or not. These findings were attributed to regulators who were not directly involved in the process of licensing mills in particular the private mills or to those that were not knowledgeable about the relationship between the private millers and the associated farmers. This view is in line with Kenya National Assembly (2014) which established that in Kenya private millers misuse the law of private property to lock government officers out of most of their operations.

On the contrary, about 10.5% of the regulators held the view that the authority to license private mills had moderately small contribution to the capacity of the Sugar directorate to revive sugarcane farming while about 5.6% of the regulators felt that the authority had very small contribution. These findings were attributed to regulators who had often witnessed private mills like West Kenya Sugar Company demotivate farmers through manipulation of weighbridges and selective provision of harvesting permits among other vices .

According to the findings, regulators are congruent in their views concerning the influence of the mandate of Sugar directorate to license private mills as an attribute of strength for revival of sugarcane farming. This finding was reflected in a low level of standard deviation (α=0.533< α=1.00).

Table 2

Authority to Set and Review Prices of Sugarcane and Sugar

Attribute of strength	Contribution to Capacity of the Sugar Directorate							
	VS	S	NS	B	VB	Mean (μ)	STD (α)	SE
Authority to set and review prices of sugar cane and sugar	5.26%	10.50%	26.30%	31.59%	26.30%	3.843	1.22	0 .211

The second high ranking attribute was the issue of the attribute of authority to set and review the prices of sugar cane and sugar. As in Table 2 above the strength of this attribute was reflected in a mean score of (μ) 3.843 which is far above the sample mean (μ) or baseline of 3.00 signifying very big contribution to the capacity of the directorate. This authority is drawn from a multiplicity of acts particularly the Crops Act No 13 of 2013, the Competition Act of 2012 (Kenya National Assembly , 2014) and further from Public Finance Management Act of 2023. The value of this authority is informed by the fact that in economic production the authority to control prices, budgeting and resource allocation is a key premise in regulatory service. This is in line with the findings of Coglianess in 2012.

This finding of the study was attributed to the fact that through the strategy of competitive pricing the sugar cane pricing committee of the Sugar directorate encourages and attracts more and more farmers into the enterprise. This is because the directorate only sets the minimum price limit but provides space for individual millers to offer higher prices hence providing opportunities for maximization of profits payable to farmers in additional to the issue of health competition that further contributes to the revival process (Government of Kenya, 2018). In brief the strategy of competitive pricing creates competition among the millers leading to millers' struggle to attract more farmers into the enterprise. The findings were further attributed to frequent price reviews especially to the reviews that cater for the dynamics of production costs. This ensured that at all times sugarcane farming is a profitable venture an issue that had motivational influence on farmers. This finding is in line with the views of Jayn et al. (2005) according to whom all over the world profit making is the reason behind commercial farming. Further to this, through inclusion of Farmers' organizations and millers in the pricing committee, the Sugar directorate captured the attention of the key players in sugarcane farming hence promoting the revival process. This finding is close to the situation in India where according to Arjchariyaatong (2006) sugarcane price is set and reviewed according to a revenue-sharing agreement between the growers and millers who are the key stakeholders.

According to the study, about 26.3% of the regulators felt that the authority to set and review the prices of sugarcane and sugar had very big strength and contribution to the capacity of the directorate to revive sugarcane farming. Additionally, about 31.5% of the regulators felt that the authority had moderately big contribution to the capacity .These findings were attributed to long serving regulators and especially those who were members of the sugarcane pricing committee because such regulators were likely to have had a lot of relevant experiences . On the contrary, about 26.3% of the regulators are not sure if the authority to set and review the prices of sugarcane and sugar had any contribution to the capacity of the directorate to revive sugarcane farming or not. This finding was attributed to regulators under the Sugar directorate who were not members of the sugar pricing committee and in particular to those whose line of duty excluded issues of sugar cane pricing.

Further to this, about 10.5% of the regulators held the view that the issue of authority or mandates to set and review the prices of sugarcane and sugar had moderately small contribution to the capacity of the Sugar directorate to revive sugar cane farming while about 5.26% felt that the authority provided very small contribution to the capacity. These findings were attributed to regulators whose line of duty did not include issues of sugar cane marketing and therefore did not have due experience and information. Alternatively, they were attributed to regulators who were not satisfied with the existing mode of price determination and review as set by the Sugar directorate. This is line with the findings of Njeru (2015)-according to which officers serving in one office often differ in opinion.

According the findings, officers working for the regulators were moderately congruent over these findings. This was justified by the moderately high score of standard deviation above the baseline (μ=1.22 > μ=1.00). This indicated that their views were closely clustered around the mean. Further to this, the low scores for SE (0.211) further confirmed that the regulators were operating as a team since it indicated uniformity in the views of the regulators.

Table 3

Policy provision and Practice of adoption of the COMESA Standards

Attribute of strength	Contribution to Capacity of the Sugar Directorate							
	VS	**S**	**NS**	**B**	**VB**	**Mean (µ)**	**STD (α)**	**SE**
Policy provision and practice of adoption of the COMESA Standards	5.26%	21.5%	10.5%	21.05%	42.1%	3.65	1.13	0.753

As shown in Table 3 above, the next attribute of strength or contributor to the capacity of the Sugar directorate to revive sugar cane farming is the issue of policy provision and practice of adoption of the COMESA Standards. This finding is attributed to Articles 10, 28 and 61 of the Kenya Constitution 2010 that provide for integration of Kenya into regional and global economic blocks. The strength of this attribute is reflected in a mean score of (μ) 3.65 which is far above the sample mean (μ) or baseline of 3.00 signifying big strength and hence big contribution to the capacity of the Sugar directorate to revive sugar cane farming. This finding was attributed to the fact that the standards are scientifically proven strategies for revival of sugarcane farming in the agro- ecological context of Kenya.

Further assessment revealed that about 42.1% of the regulators held the view that the policy provision and practice of adoption of the COMESA Standards had very big contribution to the capacity of the Sugar directorate to revive sugarcane farming. Further to this, 21.5% held the view that the policy provision and practice had moderately big contribution to the capacity of the directorate. These findings were attributed to the fact that each of the COMESA Standards was a scientifically proven strategy for revival of sugarcane farming within the agro-ecological context of Kenya.

However, about 10.5% of the regulators are not sure if the policy provision and practice of adoption of the COMESA Standards had any contribution to the capacity of the Sugar directorate to revive sugarcane farming or not. The finding was attributed to regulators who were limited in information because they had not been involved in matters of adoption of the COMESA Standards. On the contrary, about 21.5% of the regulators felt that this policy and practice had moderately small contribution to the capacity of the Sugar directorate while 5.26% felt that it provided very small contribution. These findings were attributed to regulators who were not serving the directorate within the Department of Agriculture where changes in sugar cane farming due to adoption of the COMESA Standards are a subjects of consideration. In the alternative, the findings could be attributed to regulators who felt that adoption of the COMESA Standards could not enable the Sugar directorate to revive sugarcane farming due to the limited timeframes of two years as is the case per each extension of the Safeguard measures. The findings could also be attributed to regulators who were privy to information concerning weaknesses or limitations of the Sugar directorate in terms of adopting and or invoking the standards for revival of sugarcane farming.

Further assessment revealed that the regulators were moderately congruent over these findings. This was reflected in a score of standard deviation that is only slightly above the sample mean or baseline of α=1.00 α =1.13 > α =1.00). This indicates that the views of the individual regulators are closely clustered around the mean or closely fluctuate around the mean. This is further confirmed by a low score for Standard Error (SE=0.753) which indicates that the regulators were not divided into distinct groups.

Table 4

Authority to Regulate Sugar Importation

Attribute of strength	Contribution to Capacity of the Sugar Directorate							
	VS	**S**	**NS**	**B**	**VB**	**Mean (µ)**	**STD (α)**	**SE**
Authority to Regulate Sugar Importation	10.5%	21.05%	10.5%	10.5%	42.1%	3.58	1.501	1.272

The study further established that the issue of authority for the Sugar directorate to regulate sugar importation as per the Import Licensing Act of 2012 also had contribution to the capacity of the directorate to revive sugarcane farming in Kenya. As shown in Table 4 above the strength of this attribute was reflected in a mean score (µ) of 3.58 which is above the sample mean (µ) or baseline of 3.00 and hence an indicator of moderately big contribution. This mandate is partially drawn from the Crops Act No 16 of 2013 and Public Finance Management Act of 2023. This finding is attributed to the fact that the provision ensures that the local producers were not locked out of the domestic market by sugar importers due to the higher cost of domestic production. Otherwise, according to Government of Kenya (2019) dependency on sugar imports locks local producers out of the domestic market, depresses domestic currencies, driving up inflation while rising unemployment in the sugar zones.

Further assessment of the findings revealed that up to 42.1% of the regulators held the view that the issue of authority to regulate sugar importation had very big contribution to the capacity of the Sugar directorate to revive sugar cane farming in Kenya while 10.5% felt that the authority had moderately big contribution .These findings were attributed to long serving regulators especially those who had experience in management of agriculture services and had severally witnessed challenges in sugarcane farming that were attributable to importation of sugar especially over- importation of cheaper sugar . In the alternative, the findings were attributed to regulators who were handling millers' complaints in the matters of sugarcane marketing services. Additionally, the findings were strongly attributed to regulators who were serving in the marketing department of the Sugar directorate where the matters of sugarcane and even sugar marketing services were real issues.

However, 10.5% of the regulators are not sure if the authority to regulate sugar importation had any contribution to the capacity of the directorate to revive sugarcane farming or not. This finding was attributed to regulators who were accomplice of the sugar cartels and barons. This is because in the struggle to maximize profits the cartels and their accomplice always struggle to engage regulators towards minimization of domestic production.

On the contrary, about 21.5% of the regulators felt that the authority to regulate sugar importation had small contribution to the capacity of the Sugar directorate to revive sugar cane farming in Kenya. Among these, 10.5% held the view that the authority had moderately contribution while 10.5% felt that it had very small contribution. These findings were attributed to regulators who were not satisfied with the mode and the extent to which the Sugar directorate regulates sugar importation. This view is well supported by the works of Kombo et al (2023) to the effect that that in Kenya there has never been linearity between sugar importation and deficit instead importation is always significantly above the deficit.

Further assessment revealed that the regulators were distantly in agreement over these specific findings. This is articulated in the high score of standard deviation far above the baseline ((µ=1.501 > µ=1.00). This indicates that the views of individual regulators are widely scattered around the mean. This is further confirmed by a high score of standard error above the baseline (SE =1.272>SE=1.00) indicating existence of distinct clusters among the regulators. This could be attributed to the idea that while a group of regulators are skewed towards farmers as producers another group appeared skewed towards importers for monetary gains.

Table 5

Authority to Engage into Linkages and Networks with Millers and Other Stakeholders

Attribute of strength	Contribution to Capacity of the Sugar Directorate							
	VS	S	NS	B	VB	Mean (µ)	STD (α)	SE
Linkages and Networks with Millers	10.5%	10.5%	21.05%	42.1%	15.79%	3.43	1.11	0.335

The study further established that the issue of linkages and networks between Sugar directorate and millers also had contribution to the capacity of the Sugar directorate to revive sugarcane farming in the country. The strength of this attribute was reflected in a mean score (µ) of 3.43 as in Table 5 above. The score is moderately above the sample mean or baseline of µ =3.00 signifying moderate contribution to capacity .This finding is attributed to the fact millers as stakeholders in sugarcane farming have both backward and forward influence on sugar cane farming .Therefore, a good relationship with the millers contributes to motivation of the public towards sugarcane farming. This finding is in line with Changwony (2012) according to whom regulatory agencies play several and different roles ranging from standard setting and rule –making, monitoring, enforcement and application of sanctions when necessary and hence engage with different and all stakeholders towards improvement in economic production .

This finding was attributed to the fact that since the onset of commercial sugar production in Kenya, no miller and especially the private millers had collapsed or relocated from Kenya due to issues of hostile work environment. In fact due to the conducive work environment the millers especially the private millers were being motivated to increase investment in sugarcane farming hence contributing to the revival process.

Further assessment established that about 15.7 % of the regulators felt that the authority to engage into linkages and networks between Sugar directorate and millers had very big contribution to the capacity of the directorate to revive sugarcane farming while 42.1 % felt that authority had moderately big contribution. These findings were attributed to regulators who have knowledge of the significant role played by millers in sugarcane farming both as producers and as the market for sugar cane.

However, 21.5% of the regulators are not sure if the authority to engage into linkages and networks between Sugar directorate and millers had any contribution to the capacity of the directorate to revive sugarcane farming or not. This finding was attributed to regulators who were serving the Sugar directorate in provision of support services like financial affairs and not provision of the core regulatory services. Further to this, about 10.5 % of the regulators felt that the authority had moderately small contribution to the capacity of the directorate to revive sugar cane farming in the country as another 10.5% felt that it had very small contribution. These findings were attributed to regulators who had had negative experiences particularly with private millers especially the ones associated with Asians. This is because some private miller over- emphasizes the law of private property to an extent of limiting linkages and networks with the Sugar directorate. In the alternative, the findings were attributed to regulators who were involved in deals of corruption with sugar barons given the high level of corruption in Kenya's sugar subsector. Further in the alternative, the findings were attributed to regulators who were skewed towards sugar importers and cartels at the expense of millers.

Table 6

Policy and Practice of Departmentalization of the Regulatory Services

Attribute of strength	Contribution to Capacity of the Sugar Directorate							
	VS	S	NS	B	VB	Mean (µ)	STD (α)	SE
Departmentalization of services	5.26 %	10.5%	47.37%	21.05%	15.79%	3.40	1.13	0.331

As shown in Table 6 above the study also established that the issue of policy and practice of departmentalization of the Sugar directorate also had contribution to the capacity of the Sugar directorate to revive sugar cane farming. The strength and contribution of this attribute is reflected in a mean score of 3.40 which is moderately above the sample mean (µ) or baseline of 3.00 implying that the policy and practice had moderately big contribution on the capacity of the directorate to revive sugarcane farming in Kenya. This is because departmentalization ensures comprehensive coverage and fulfillment of an organization's mandate.

According to the study about 15.7% of the regulators felt that the issue of policy and practice of departmentalization had very big contribution to the capacity of the Sugar directorate for revival of sugarcane farming while 21.05 % felt that it had moderately big contribution. These findings were attributed to regulators who were serving within the top management team of the Sugar directorate and therefore privy to the fact that departmentalization had enhanced delivery of essential services for revival of sugarcane farming. This is in line with Scott (2004) according to whom regulation is focused on the control different activities of a nation or an organization.

However, about 47.3% of the regulators are not sure if the issue of policy and practice of departmentalization had any contribution to the capacity of the Sugar directorate to revive sugarcane farming or not. This finding was attributed to regulators who were not members of the top management team of the Sugar directorate because such regulators were not participants in planning, monitoring and evaluation of service delivery and yet revival of sugarcane farming depends on these components of service delivery. On the contrary, about 15.76 % of the regulators held the view that the issue of policy and practice of departmentalization had moderately small contribution to the capacity of the Sugar directorate for revival of sugarcane farming while 5.26% held the view that it had very small contribution. This finding was attributed to regulators who were dissatisfied with the service structure and charter of Sugar directorate. In the alternative, the findings were attributed to regulators whose suggestions towards organization or reorganization of the service charter as contribution to revival of sugarcane farming were rejected.

Further assessment revealed a moderate level of convergence among regulators over the attribute of departmentalization as a source of strength attributes. This view is justified by a moderate score of standard deviation (μ=1.13 > μ=1.00). This indicates that the views of individual regulators are closely clustered around the mean as confirmed by a low score of standard error (SE=0.331).

3.2 Evaluation of Capacity of the Sugar Directorate as Reflected in Attributes of Exploitable Opportunities

In terms of the capacity of the Sugar directorate to revive sugarcane farming in the future, the study investigated and ranked opportunities that the Sugar directorate can exploit and the findings are in the respective tables.

Table 7
Chance to Seek For the Intervention of the Presidency

Indicator of opportunity	Potential Contribution to Capacity of the Sugar directorate							
	VS (1)	S (2)	N (3)	B (4)	VB (5)	Mean (μ)	STD (α)	SE
Chance to seek for intervention of the presidency	5.26%	5.26%	21.05%	52.63 %	10.5%	3.90	1.251	0.432

The study established that the biggest exploitable opportunity for the Sugar directorate to revive cane farming in Kenya was the issue of the Sugar directorate having chance to seek for the intervention of the presidency. The potentiality of this exploitable opportunity was reflected in a mean score (μ) of 3.90 as in Table 7 which is far above the sample mean (μ) or baseline of 3.00 signifying an opportunity with very high potential of contribution to the capacity of the Sugar directorate . This finding was attributed to the fact that all over the world a conducive policy environment is a critical requirement for the success of efforts to revive economic production. In the case of Kenya as a state the presidency has all the necessary machinery to ensure a conducive policy environment through due policy and subsequently regulatory interventions. This finding is in line with Kambanda (2013)) and Lodge (2001) according to whom all of us are living in an era of regulated state system.

Further assessment revealed that a majority of the regulators (63.13%) held the view that the issue of the Sugar directorate having a chance to seek for the intervention of the presidency had big potential contribution to the capacity of the Sugar directorate to revive sugarcane farming in Kenya. Among these regulators 10.5% felt that the issue had very big potential contribution while 52.63% held the view that it had moderately big potential contribution. These findings were attributed to the fact that through the cabinet, parliament, Sugar parliamentary committee and other arms of government the presidency has the capacity as reflected in the Constitution of Kenya 2010 to address existing and emerging policy concerns, convert the dormant Sugar Bill of 2019 and engage many other policy interventions into parliamentary acts that can upscale the capacity of the Sugar directorate to revive sugar cane farming in the country. Further to this, the presidency could also address the issue of heavy taxation which so far has strong constraining influence and also re-establish the Sugar Development Levy to make the sugar subsector more vibrant and self-reliant financially.

According to the findings, about 21.05% of the regulators are not sure if the issue of the Sugar directorate having a chance to seek for the intervention of the presidency had big potential contribution to the capacity of the Sugar directorate to revive sugarcane farming in the country or not. This finding was attributed to the suspicion that the presidency may fail to adopt some of the demands and recommendations or simply fail to listen to the Sugar directorate for political reasons. On the contrary, about 10.50% of the regulators held the view that the issue of the Sugar directorate having a chance to seek for the intervention of the presidency had low potential contribution to the capacity of the Sugar directorate to revive sugarcane farming. Among these, 5.26% held the view that the issue had moderately low potential contribution while another 5.26% felt that it had very low potential contribution. These findings were attributed to regulators who had made several attempts to revive sugarcane farming by engaging the presidency but had failed to get due assistance. In the alternative, the findings were attributed to regulators who felt that the existing presidency had limited goodwill for revival of sugarcane farming.

Further assessment revealed that the regulators were moderately congruent in their views over the potential value of engaging the presidency. This was reflected in a moderately low score of the Standard Deviation ($\mu=1.251> \mu=1.00$) and further confirmed by low score of Standard Error (SE=0.432).

Table 8

Chance to Enhance Market and Boarder Surveillance Services

Indicator of opportunity	**Potential Contribution to Capacity of the Sugar directorate**							
	VS (1)	S (2)	N (3)	B (4)	VB (5)	Mean (μ)	**STD (α)**	**SE**
Chance to intensify market and board surveillance services	5.26%	15.79%	21.05%	47.37%	10.5%	3.72	1.43	0.244

As reflected in Table 8 the study further established that the next high ranking opportunity for the Sugar directorate to revive sugar cane farming in Kenya is the issue of having a chance to enhance market and border surveillance services. The potential contribution of this exploitable opportunity was reflected in a mean score of (μ) 3.72. The potentiality of this issue was attributed to the fact that perfecting market and surveillance services in the contexts of sugar importation and the domestic sugar market will stop flooding of the market with illegally imported sugar regardless of the cheapness. Further to this, surveillance in the perspective of the domestic market will eliminate sale of illegally transmitted sugar and other associated vices like malicious repackaging and rebranding of sugar from external sources into packages bearing the labels of the local millers. This will significantly expand the market space for locally produced sugar thereby encouraging local production and hence revival of sugarcane farming.

The findings revealed that a majority of the regulators (57.87%) felt that the issue of the directorate having a chance to enhance market and border surveillance services had a big potential contribution to the capacity of the Sugar directorate to revive sugarcane farming. Among these 10.5% held the view that this issue had very big potential contribution while 47.37% felt that it had moderately big potential contribution. These findings were attributed to regulators who were within the top management team of Sugar directorate and therefore aware of how illegally transmitted sugar reduces market opportunities for the locally produced sugar. Alternatively, the findings were attributed to regulators who had served or were serving in the surveillance team and hence dully informed about the potentiality of this opportunity.

However, about 21.05% of the regulators are not sure if the issue of the directorate having a chance to enhance market and surveillance services had any potential contribution to the capacity of the Sugar directorate to revive sugarcane farming or not. This finding was attributed to officers who were not within the core regulatory framework of the directorate and therefore not fully informed. Further assessment revealed that about 21.05% of the regulators held the view the issue of the directorate having a chance to enhance market and surveillance services had low potential contribution to the capacity of the sugar directorate revive sugarcane farming. Among these, about 15.79% felt that it had moderately small contribution while 5.26% held the view that it had very low potential contribution. These findings were attributed to regulators who were seeing a hand of senior government officers in the illegal transmission of cheap sugar from external sources into Kenya’s domestic market. This meant that according to these regulators the potential success will be blocked by the high level powers especially given the issues of discretionary powers constitutionally associated with the presidency as per Article 113 of the Kenya Constitution 2010.

However, the study also established that the regulators under the Sugar directorate were distantly congruent in their views over this issue. This was reflected in a high score of standard deviation above the baseline (α=1.43>1.00).This meant that the views of the regulators fluctuate widely around the mean. On the contrary, a low score of the standard error (SE=0.244) revealed that there are no distinct clusters among the regulators as concerns this opportunity.

Table 9
Chance to Enhance Linkages and Networks with Stakeholders

Indicator of opportunity	Potential Contribution to Capacity of the Sugar directorate							
	VS (1)	S (2)	N (3)	B (4)	VB (5)	Mean (μ)	STD (α)	SE
Chance to enhance linkages and networks with stakeholders	10.5%	21.05 %	10.5%	10.5%	47.37%	3.58	1.41	0.38

According to the findings, the next high ranking opportunity for the Sugar directorate to revive sugar cane farming was the issue of the chance to enhance linkages and networks with stakeholders. As in Table 9, the potentiality of this opportunity was reflected in a mean score (μ) of 3.58 which is far above the baseline score of μ =3.00 and thus an indicator of high potentiality. The potential of this specific opportunity was attributed to the fact that every stakeholder has potential to play an additive role in revival of sugar cane farming in Kenya. The potential of this strategy depends on the extent of inclusion of different stakeholders particularly the farmers, Farmers' organizations and millers who are the key players. Similarly in 2004 Jordan and Sacho indicated that regulatory organizations should not be viewed in isolation but within a broad institutional framework in the work environment.

Further assessment of the findings revealed that a majority (57.87%) of the regulators held the view that the issue of the chance to enhance linkages and networks with stakeholders had big potential contribution to the capacity of the Sugar directorate to enable revival of sugarcane farming. Among these 47.37% held the view that it had very big potential contribution while 10.5% held the view that it had moderately big potential. These findings were attributed to the regulators who were members of the top management team of the Sugar directorate and more especially to the long serving regulators. This is because long serving regulators had had opportunity to interact with most of the stakeholders and therefore had a good picture of the potential contribution of each stakeholder towards revival of sugarcane farming. However, up to 10.5% of the regulators are not sure if the issue of the chance to enhance linkages and networks with stakeholders could influence revival of sugarcane farming or not. This finding was attributed to regulators who were newly employed and therefore yet to interact and understand the potential contribution of each stakeholder to the capacity of the regulatory agency.

Furthermore, about 31.55% of the regulators held the view that the issue of the chance to enhance linkages and networks with stakeholders had low potential contribution. Among these 21.05% felt that it had moderately low potential contribution while 10.5% held the view that it had very low potential contribution to the capacity of the Sugar directorate to enable revival of sugarcane farming in the country. These findings were attributed to the regulators who were not members of the top management team of the Sugar directorate because issues of stakeholder engagement are a function of the top management team. The study further established that the regulators were moderately in agreement over the potential of this opportunity. This was reflected in moderate score of the standard deviation above the baseline (μ=1.41> 1.00) and further by the low score of the standard error (SE=0.38).

Table 10
Chance to Upscale Its Strategic Plan

Indicator of opportunity	Potential Contribution to Capacity of the Sugar directorate							
	VS (1)	S (2)	N (3)	B (4)	VB (5)	Mean (μ)	STD (α)	SE
Chance to upscale its strategic plan	21.05%	15.79%	10.5%	10.5%	42.37%	3.43	1.093	0.467

The study established that another opportunity for the Sugar directorate to revive sugarcane farming is the issue of the chance to upscale its strategic plan. This opportunity was reflected in a mean score of 3.43 as in Table 10 which is moderately above the sample mean or baseline of 3.00 and thus an indicator of moderately big opportunity. This is in line with the fact that the capacity of a state to revive economic production is reflected in the capacity of the state regulatory agencies to meet the set targets (Christensen, 2001). The finding was attributed to the idea that strategic planning can be reframed to be more responsive to the emerging challenges of economic production. The findings revealed that a majority of the regulators (52.87%) held the view that the issue of the chance to enhance of the strategic plan of the Sugar directorate had big contribution to the capacity of the directorate to enable revival of sugarcane farming. Among these, 42.37% held the view that it had very big potential contribution while 10.5% felt that this issue had moderately potential contribution. These findings were attributed to regulators who were within the top management team of the directorate. This is because this is the team that is responsible for strategic planning.

However, about 10.5% of the regulators are not sure if the issue of the chance to upscale the strategic plan of the Sugar directorate provides any opportunity for it to revive sugarcane farming or not. The finding was attributed to newly employed regulators who were yet to get due experience in the matters of planning and sugarcane farming. Further assessment revealed that about 36.84% of the regulators felt that the issue of enhancement of the strategic plan of Sugar directorate had small potential contribution to the capacity of the sugar directorate to enable revival of sugarcane farming. Among these 15.79% felt that it had moderately low potential contribution while 21.05% felt it had very low potential. This was attributed to regulators who held the view that the critical challenge of the Sugar directorate with respect to revival of sugarcane farming was not an attribute of planning but an issue of constrains in the implementation of the strategy. In other words, they felt that even very good plans may not add value due to challenges of implementation.

Further assessment of the findings revealed that the regulators were highly congruent over this aspect of opportunity. This was reflected a score of standard deviation that is only slightly higher than the baseline value (μ=1.0937>1.00). This meant that the responses of individual regulators fluctuate closely around the mean. This is further confirmed by a low score of standard error (SE=0.467) which confirms that the regulators were not divisible into distinct clusters.

IV. HYPOTHESIS TESTING

The Null hypothesis (H01) of the study was that the Sugar directorate had no statistically significant capacity to revival of sugar cane farming in Kenya. The Alternate hypothesis was that the Sugar directorate had statistically significant capacity to revive sugar cane farming. The findings were subjected to t-test at 95% confidence limit.

Table 11

Results for T-Test

t-test Outcome	T- Value at 95% Confidence Limit
t-calculated	1.41
t- table	0.03

As shown in Table 11, the test yielded a T –score that is greater than the table or alpha value (1.41>.03). Given that in research the decision rule is to reject the Null hypothesis when the resulting calculated score or p-value is bigger than the table or alpha value at 5%, the Null hypothesis was rejected and the alternate hypothesis accepted. This means that the Sugar directorate has statistically significant capacity to revive sugarcane farming in Kenya as reflected in the attributes of strengths and exploitable opportunities.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The Sugar directorate has significant capacity to revive sugar cane farming in Kenya as reflected in attributes of strengths and opportunities. This means that the Sugar directorate can make history of reviving sugar cane farming in Kenya. The attributes of strengths ranged from the authority to license private mills drawn from Trade Licensing Act of 2012, the authority to review sugarcane prices drawn from the Agriculture and Food Authority Act of 2013, the provision for adoption of COMESA Standards as per Article 2 of the constitution down to the authority to control sugar importation which is drawn from the Import Licensing Act of 2013. Its opportunities for the directorate ranged from the issue of the chance to seek for the intervention of the presidency, the chance to intensify border and market and surveillance services as per the Agriculture and Food Authority Act of 2012, the chance to enhance linkages and networks with stakeholders down to the chance to upscale its strategic plan in line with the Public Finance Management Act of 2023.

5.2. Recommendations

To revive sugar cane farming in Kenya, the Sugar directorate should be refocused to enhance adherence to the identified attributes of strengths and to development of strategies to exploit the identified unexploited opportunities.

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