

Government Policies' mediating influence On the Relationship between Knowledge Management Practices (KMPs') and Sustainability Of Sugar Companies in Kenya

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Abstract:

Knowledge management practices (KMPs') have been used for over 6 decades by corporate sectors beside legal frameworks-government policies to achieve competitive advantage and sustainability. The Sugar companies in Kenya continue to realize dismaying results as their performance decline with the companies sinking under heavy debts and their dreams for sustainability becomes more elusive. This study seeks to establish whether Government policies' mediating influence on the relationship between KMPs' and Sustainability of Sugar Companies in Kenya. The study used null hypothesis to test the hypothesis that 'Government policies have no statistical mediating influence on the relationship between KMPs' and Sustainability of Sugar Companies in Kenya. Inferential statistics were used to analyze the data collected from a sample population of 250 respondents from all functional state owed sugar companies. Significantly, the outcome of this study is expected to cause a paradigm in rationalizing the government in enacting its trade legislations to improve management and performance to cause sustainability of sugar companies and adds stock of invaluable literature materials for reference by scholars. The study reveals from its Inferential statistics that KMPs' contributed to R^2 .462 ; However with mediation of government policy it comes to R^2 = .467 implying that the interaction effect of KMPs' and government policy only accounted for R^2 = .005 (0.5%) which confirms that government policies have partial mediating influence. The study confirms the model $P=a+b_1X_{ij}+\beta_2Y_{2ij}+\beta_3XY_{ij}+\epsilon\dots$ (Y- mediation of government policy and XY – interaction of KMPs') and on the basis rejects the null hypothesis that 'Government policies have no statistical mediating influence on the relationship between KMPs' and Sustainability of Sugar Companies in Kenya' and concludes that Government policies have mediating influence on the relationship between KMPs' and sustainability and that the government must put checks and control on its trade policies- liberalization and pricing to allow the companies to benefit from their Knowledge assets. The study thus recommends that the government should control liberalization of trade in sugar by using punitive tariffs on imports while enforcing strict price control regime of sugar in the country to create level ground for KMPs' to thrive in influencing corporate sustainability. It should also extend COMESA safeguards and re-negotiate its preferential market quota allocation as this will open gates for Knowledge creation and creativity as market would demand. The sugar companies should also appeal to the government to control liberalization of trade in sugar and enforce strict price control regime of sugar in the country.

Key words: Mediation, Knowledge management practices and Sustainability

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I. INTRODUCTION

Background to the Study

Effective Knowledge Management Practices (KMPs') such as knowledge creation, sharing, acquisition and application are fundamental to organizations' performance and sustainability. Knowledge management was first introduced by Drucker in 1959 and the term came to general usage in 1986 (Kellogg, 1986) as a multidisciplinary field that includes Information system, Organization Theory, Strategic and Human Resource Management (Jusimuddin, 2006). It is one major factor in addition to ecological (environmental) factors (Wagner, 2005) and organizations' culture that influence competitive advantage of firms and thus their sustainability.

America and the rest of the world changed dramatically by the end of the 20th century by succumbing to the demands of knowledge era and that with the dawn of industrialization their growth depended on the new knowledge economy (PPI, 2008). Webber (2000) asserted that the nations' drift from traditional economies predominated by fluid mixture of capital, labour and land did not make their growth possible without adoption

of knowledge asset resources. Knowledge assets used as business strategy to an organization possesses paradoxical characteristics that distinguishes it from other organization assets in that; its usage does not consume it and its transfer (sharing) doesn't results into its loss or depreciation. It is also considered abundant except the ability to exploit it is deficient.

Finally, it's an asset that most organizations' loose due to employees' turn over and this has a negative consequence on firms' competitiveness (Kimiz, 2005). With current state of competition and globalization, organizations sustainability is not only dependent on state of technology but also on the contribution of its knowledge assets (Lin & Tseng, 2005). Knowledge Management (KM) therefore prepares individual for success and organization for successful outcomes. In developed and developing countries such as Italy, Pakistan and Malaysia, the study of Knowledge Management (KM) amongst multinational and pharmaceutical companies indicated that it had relationship with improved performance (Rizwan & Mohamud, 2012). KM is thus critical component of sustainable competitive advantage and is capable of giving a firm long term benefits (Darroch & Mc Naughton, 2002; Alavi & Leidener, 2001).

In Norway, studies by Dingsoryr (2002) on KM also reveal that KMPs' are capable of influencing performance and growth and should therefore help corporate management to cut down on organization layers, increase flexibility of enterprise and contribute to sharing infrastructure (Huosong Xia, Kuanqu, Du & Shuquin, Cui, 2003). Huosong Xia et al., (2003) also pointed out that KM may also help in reducing time wastage required to capture correct information or make decisions, reduce production costs, improve success rate and potentially reduce research and development costs and product development cycle time.

In addition, they indicated that good KM can also help the organization in identifying cultural and behavioural changes that are prerequisite to the implementation of incentives and practices that foster improved changes.

According to Scaruffi (2003) Knowledge management can influence man to develop flexible behavior in understanding and adjusting to the world around him as well as transforming it to suit his needs. He argues KM is capable of helping humans become subjects rather than objects of change. In Nigeria, IFAD (2007) pointed out that KM became one of the keys that delivered corporate actions that influenced organizations rapid transformations in agriculture and industry, and served as a means of alleviating poverty amongst the poor Rural Nigerians.

According to Malaska *et al.*,(2002) companies register sustainable growth when the effect of their cumulative growth within the environment (social welfare) doesn't exceed effects due to their intensive improvements. And firms have to ensure viability and health of ecosystems to safeguard on catastrophic ecosystem collapse (Islam *et al.*, 2003). In China, India, Mesopotamia and Egypt KMPs' especially Knowledge acquisition and utilization enabled people to improve their ecosystems, adapted to it and diminished its impact on their civilization (Jean, 2010). Underperformance of Kenya sugar companies that has shattered the country's dream for sustainability could however be remedied by companies' embracing appropriate Knowledge Management Practices (KMPs') to rekindle the country's diminishing hopes for improving sugar productivity, the company's growth and sustainability.

According to Wanyande (2005) and Wanyande (2010) Sugar companies in Kenya seem to have had little competitive advantage the reason they have been brought under focus of discussion in Kenya Parliament on poor performance; yet they are believed to have used KMPs' since sugar industry was established in 1922; for over five decades from the time KM was introduced in management in 1956 to transform individual knowledge into corporate assets capable of enhancing performance and sustainability. The same phenomenon has also been pointed out by Kenya National Bureau of Statistics (KNBS)(2012) that between 2009- 2011 the sub-sector failed to meet its expected domestic capacity and exportable surplus despite the ecological and demographic endowments and that some firms are currently at the verge of collapse. This situation therefore calls for research into the Government Policies' mediating influence On The Relationship Between Knowledge Management Practices (KMPs') and Sustainability of sugar companies in Kenya.

1.2: Statement of the Problem

Knowledge management practices (KMPs') have become increasingly important in the current world to firms that are looking for competitive advantage and sustainability. Sugar companies in Kenya like many other firms in the world have used KMPs' since 1959 to improve their social capital resources in their quest for enhanced performance and sustainability but have realized dismaying results as their performance consistently decline with the companies sinking under heavy debts. Despite the companies' social capital and government policy support, the companies have currently been shortlisted for privatization at a time when the local market is overwhelming causing rising sugar imports from 4000 tonnes in 1984 to 249,336 tonnes in 2001. The companies were provided technical support from the government and agencies such as Kenya Sugar Board (KSB), Sugar Development Authority (SDA) and Consulting Agencies to enhance sugar companies performance and fast track their sustainable growth after establishment of Act of parliament in 1966. With these

high profiled trained human capital, financial support and policies the government envisaged a rapid take-off of the companies to mark the beginning of growth of subsidiary industries, increased job creation, sustain the local demand for sugar and meet the country's quota allocation of export for revenue earning and attain sustainable growth of sugar industries in Kenya. However, the outcome in performance portrays a reverse scenario making underperforming firms such as Muhoroni and Miwani to be put in partial receivership in 2010 and full receivership respectively leaving the rest of the companies Nzoia, Chemelil and Sony poor performance under sharp focus of discussion in Kenya Parliament (Wanyande, 2010) and shortlisted for privatization. While studies conducted in Italy, Pakistan and Malaysia amongst multinational and pharmaceutical companies confirms that KMPs' in liberalized country with favorable trade policies had relationship with improved growth and performance (Rizwan & Mohamud, 2012) others done in Norway by Dingsoryr (2002) also reveal that KMPs' is capable of influencing performance and growth of companies in a liberalized economy. These studies used case studies and cross sectional surveys but none of them fully considered the moderating influence of government policies on the relationship between KMPs' and sustainability of sugar companies in Kenya. The question of sustainability thus remains unanswered as these studies did not however reveal that KMPs' could also lead to organizational sustainability under intermediation of government policies. It is on the basis of the forgoing claims that this study purposed to establish government policies mediating influence on the relationship between KMPs' and Sustainability of Sugar companies in Kenya.

Objective of the Study

The general intention of this study was to establish the mediating influence of government policies on the relationship between KMPs' and Sustainability of state owned Sugar Companies in Kenya.

Research Hypothesis

H04: Government Policies have no statistical mediating influence on the relationship between KMPs' and sustainability of sugar companies in Kenya.

1.5: Significance of the Study

The study of KMPs' may help firms understand dramatic changes occurring in global economy in terms of new opportunities and threats from their competitors and respond to challenges resulting from liberalization of global markets.

The following groups are expected to benefit from this study:-

The County governments may embrace suggestions by the study and allocate funds to develop human capital resources in the sugar companies to achieve the goals that led to their initiation in 1966 and the economy's sustained growth in sugar production. The report of this study is expected to increase stock of invaluable literature for reference by scholars who will endeavor to research in related area. Finally, it is also envisaged that study will equip Management of sugar companies with supportive knowledge management based practices and learning cultures that may be adopted besides tangible capital resources to foster partnership for enhanced performance, growth and sustainability.

Scope of the Study

This study was delimited to four dimensions which scholars such as Mugenda & Mugenda (2003); Orodho (2005) and Oso& Onen (2005) concur on to include Geographical Scope, Content Scope, Sample Scope and Time scope. This thesis therefore explored the influence Government policies on the relationship between Knowledge Management Practices and sustainability of sugar companies in Kenya. It delimited itself to the state owned sugar companies that spread across western and Nyanza. A sample population of 300 respondents drawn entirely from 1200 managerial staff of the companies namely Mumias, Nzoia, Sony, Muhoroni and Chemelil were involved in the study. Descriptive survey was adopted in the study to ensure that all inclusive, exhaustive and reliable data were gathered from the companies over a period of 10 months.

II. LITERATURE REVIEW

Introduction

This chapter presents a critical review of existing empirical studies on Knowledge Management Practices (KMPs'), and their influences on the corporate performance and sustainability. It also explains theoretical underpinning, themes and sub-themes of the independent variables, conceptual framework and finally establishes the research gap.

Sustainability

According to Bruntland Commission of 1987, WCED (1987), World Bank (2005), Kuckartz & Wagner (2010) Sustainability means "meeting the demands of the present society without compromising ability of future

generations to satisfy their own needs by responding to current economic and social environmental challenges". The purpose of sustainability is to improve economic, environmental and social performance of companies (Bos Brouwers, 2010) to enhance their survivability and make them self-supporting. A sustainable company is one that offers product and services that fulfill the societal needs while considering its ecological, social and economic impacts on earth's inhabitants and without compromising the needs of its future generations (Azapagic & Perdan, 2000; Welford, 2000).

DETR (2000) further argued that sustainability is all about ensuring better quality life for every one now and for generations to come through social progress while meeting people's needs, protecting environment, ensuring prudent use of natural resources and maintaining stable economic growth and empowerment. Roy (2003) argued that the essence of sustainable development is determined by the people and is attributed to changes of people's attitudes and habits. Sustainable development often includes social, environmental and economic variables often referred to as Triple bottom line (TBL) parameters.

DETR (2000) posited that sustainable development is about ensuring better quality life to society now and in future through social progress (development of infrastructure, health and sanitation, environmental protection (tree planting and protection of biodiversity, ensuring effective use of natural and waste resources) and maintaining stable level of economic growth and employment). According to Hennis (2000) organizational sustainability could be measured using economic, social and ecological parameters the achievement which anchors on firms prudent KMPs' and a country's political good will. The bottom line of sustainable development is to develop capacity to help the poor to maintain and improve their natural capital (natural resources) while developing their human capital (human resources) and manmade capital (investment infrastructure, social capital, cultural bases and political systems) that makes society function (Cellis & Jean-Louis, 2004). Precisely sustainability issues are focused on making organizations self-reliant in their social, economic and ecological growth and developments.

Theoretical Review

Two theories that are associated to this study include Resources based theory, Human capital theory and intellectual capital theory. Human Capital Theory. Human capital means knowledge, skills and capability of individual employees that permits their provisions of solution to customers (Tapsell, 1998). The theory was coined by an American economist, Theodore W. Schultz in 1960. It states that an institutional growth is dependent on an aggregate knowledge and skills in its workforce. It implies that for an institution to grow and sustain its structures, wealth and people both for now and in future, it must invest heavily in knowledge acquisition (education and training) of its human capital. Grant (1991) also argues from resource based point of view that the source of a firm's competitive advantage lies in its human capital and their knowledge and not how it positions itself in the market. Schultz and Grant's perspectives are unrealistic because the firms' aggregate knowledge assets and its position in the market are complementary and vital to its performance, economic, ecological and social sustainability.

This theory argues that knowledge is a crucial source of innovation and strategic renewal whether it is from brainstorming or research laboratories or day dreaming at office, re-engineering new processes, improving personal skills or developing new sales lead (Bontis, 1996). The theory of Human Capital was reviewed in the study of intellectual capital by the Economics Institute of Washington DC, that broadens its worth beyond an institution or a firm to the nations that "the economic value of the nation depends more on employees skills, knowledge and business problem aptitude than it does upon the market value of the firms commercial output" (Di Steffano and Kalbaugh, 1999). This theory also justifies KMPs' as one of the main contributors to organizations' competitive advantage which is fine but fails to authenticate its effect on firms' sustained growth. It did not also focus on effects of diminishing marginal utility, quality of firms' tangible assets and the role of government policy and politics on corporate performance and organizational sustainability.

Intellectual Capital theory (ICT)

According to Dzikowski (2000) "Intellectual Capital is the stock of capital knowledge based equity which a company possesses that may be end result of Knowledge transformation process or knowledge itself that is capable of transforming into intellectual property of the firm." Intellectual capital thus may be broken down into three areas, human capital, structural capital and customer capital. Human capital is comprised of knowhow, competence, skills and capability of human members of the firm. Structural capital is comprised of the capability that is developed to meet market requirements such as patents and trademarks, process improvements methodologies to improve effectiveness and profitability of the firm while Customer capital on the other hand includes communication between external and internal entities of the organization such as customer loyalty, good will and stakeholder's relationships. According to Edvison & Malome (1997), the above three variable capital components correlate to deliver value to customers making organizations to cut competitive edge and built value platform that makes it sustainable.

The value platform may be illustrated as follows:-

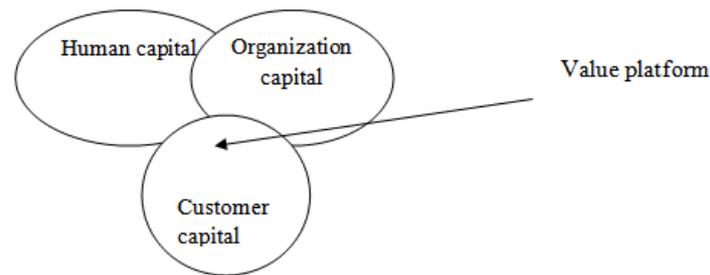


Figure 3.2: Value platform Model Capital (1997)

Value platform articulates that the intersection of the three capitals creates value that is fundamental to corporate sustainability. From the forgoing theory, it's worth noting that the benefits of investing in KM practices are intuitive and should be authentic to proactive managers that are attempting to compete in the 21st century and beyond since it brings benefits to individuals, organizations and Community of practice as follows:- For individual Employees, KMPs' helps workers in enhancing their job performance, saving of time through better decision making and problem solving, enable individual workers build a sense of community bond within the organization. Knowledge acquisition helps to keep employees professionally relevant and up to date and provide employees with challenges and opportunities.

Ovaska *et al.*, (2009) asserts that for Community of Practice, the sharing of companies' knowledge assets serves as a foundation for collaboration which is significant in developing professional skills, promoting peer to peer mentoring through knowledge strategy, facilitates effective networking, collaboration and development of a corporate culture.

According to KPMG (2000) for Organizations, embracing appropriate KMPs' helps to drive strategies that enhance problem solving diffuses desirable corporate culture and best practices and improves knowledge that is embedded in product or services. KMPs' thus helps organizations in improving customer service, and organizations ability to innovate, improve coordination of efforts and transaction of new products by facilitating cross fertilization of ideas and increasing opportunities for innovation. Consequently, KMPs' also improves organizations' responses to market challenges (KPMG, 2000; Taminian, Smit & Delanse, 2009) and enables them to remain competitive by building their memory. In addition Lu, Wang, Tung & Lin (2010) asserted that firms facing stiff competition within their remote environments should increase their value creation processes through intellectual capital because it is an important factor for sustaining competitive advantage in the market. The theory contends with the fact that in a knowledge based economy, continuous knowledge creation is prerequisite to firms' competitiveness.

The relevance of the Intellectual Capital Theory (ICT) lies in its recognition to sum of firms' knowledge which is a key factor in production. However this resource must be kept nurtured through prudent practices such as acquisition and sharing like training, seminars and workshops so that they are kept relevant and oriented to firm's culture and goals that deliver sustainable growth. In the same way, their employees' social mobility must be controlled by firms' offer of job security and good compensation practices. The theory also considers Customer capital which is an important element of performance and sustainability. Capturing Customer capital also involves reaching the community through corporate social responsibility which also contributes to social sustainability. According to Capital (1997), if a firm doesn't position itself to the market it will lack competitiveness, compromise its survivability and risk obsolescence. The theory therefore recommends the development of firms' skills, provision of incentives and retention for mutual sustainable benefit rather than hiring of workforce for fear that they would exit to other rivals with firms' knowledge for competitive rewards. Its' also said that a firm must plough back its profits to diversify its programs and retain its workforce by providing competitive compensations and as well address the needs of its social environment through corporate social responsibility and through ecosystem integrity practices in order to achieve universal sustainability.

Conceptual Framework

Fig.4.2 below is an illustration of a conceptual framework that shows the mediating influence of government policies on the relationship between KMPs' and Sustainability of sugar companies in Kenya.

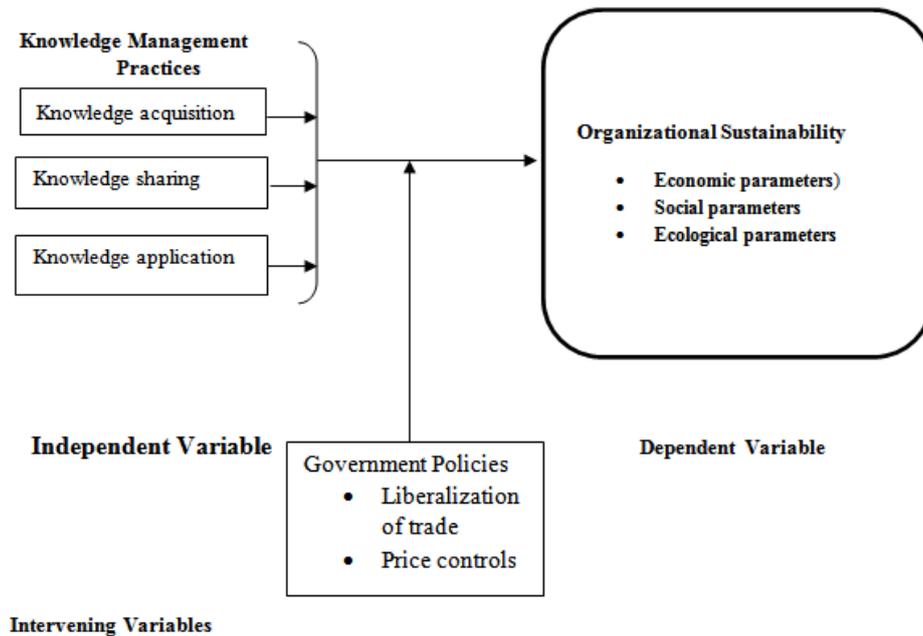


Figure 4.2: Conceptual Framework

The conceptual framework has been developed from suggestions of Islam & Clerke(2005), Sharma & Buud (2003) and Guest(2010). It has also been blended by suggestions of Fugate *et al.*,(2009),Cho *et al.*,(2008) and Verfaillie & Bidwell (2000) which measures sustainability against economic, social and ecological parameters. It also brings the interplay of government policy interventions on the influence of KMPs' and sustainability.

Review of Empirical Literature on Government Policies and Sustainability of Sugar companies in Kenya.

Government policies are governments' legal frameworks that are used to control varied situations of the economy (Hornby, 2008). In many parts of the world, policies may foster developments, bring ruins or decay, successes or failures of institutions. Most corporate performance, growth and sustainability are dependent on the feasible policies that are rolled by an institution. Some of the key policy reforms that are popularly used by many governments in managing their corporate sector economies are liberalization and price control.

In USA, liberalization policy was blamed for bringing cut throat competition that led to mortality of steel companies (Miller, 1991).This had general effect on workers and the economy. Workers were sacked and the economy suffered depression. By 1991 USA enacted anti- trust legislation such as Sharman Act of 1991 which restricted corporate conspiracy, Clayton Act of 1994 and Hart Scott Robbino Anti- improvement Act of 1980 which outlawed corporate merger (Miller, 1991). These Acts encouraged competition and broke monopoly powers of already existing firms which were occasioned with high prices and production of substandard products. According to Zambian Sugar Report (2009) Zambian liberalization policy also forced the government to subsidize heavily to make local sugar prices to match those of imports in order to salvage infant sugar companies from mortality. Without such incentives the companies could have compromised their performance and growth. Odek (2005)pointed out that Kenya's involvement in economic integration that led to removal of trade barriers as it subscribed to Preferential Trade Area (PTA) and Common Market for Eastern and Southern African (COMESA) membership, permitted liberalization in trade and industry.

This led to negotiated quota of sugar import from COMESA states. It is under this guise that Private sugar millers and cartel sugar firms such as Rising Star Comodities Ltd, Krish Comodities Ltd, Shree Sai Industries Ltd, Rees Wood Enterprise Ltd, Shake distributors and Hydrey (P) Ltd owned by political 'big shots' began importing illegal cheap sugar from non- COMESA partners (Report by Departmental Committee on Agric., Livestock & Co-operatives, 2014).This led to importation of unlicensed 15,140.4 metric tonnes resulting into saturation of local market with cheap sugar and cash flow challenges to local sugar companies' which experienced stock piles. This weakened the Kenyan Sugar economy in terms of growth and sustainability of its infant industries as the companies that were recovering from heavy debts re-submerged into huge debts putting their dream for growth and sustainability at stake as indicated in the Table 1.2;

Table 1.2: State Owned Sugar Companies indebtedness in Kenya Companies Debt burden

	1997-2001 (Kshs- million)	2012-2014 (Kshs- billion)
Mumias	860,000,000 *	
Sony	640,000,000	5,000,000,000
Nzoia	580,000,000	37, 000,000,000
Muhoroni	450,000,000	27,000,000,000
Chemelil	210,000,000	5,000,000,000
Miwani	**	28,000,000,000
Total	2,740,000,000	100,000,000,000

Source: Odek, (2003) : Report of Departmental Committee OnAgric. Livestock& Co-operatives,(2015).

The effect of Liberalization was felt elsewhere. It caused collapse of Steel mill companies in USA with consequent mass lay off of workers and sagging of the economy(Miller, 1991).

In 2000, The Kenya government blamed liberalization for stiff competition faced in its steel Oil Industry, a Multinational corporation which had to rethink strategies to reposition itself once again to maintain its market share (Njoroje, 2000). However, advocates of liberalization such as Mwangi (2000) maintains that liberalization is beneficial since it opens up doors for investment opportunities, facilitate export trade, step up level of specialization and foster mutual political understanding between countries. As a result if liberalization that contraband sugar were imported into the country by cartel operating firms, repackaged to conceal identity and evade surveillance network of KSB and KRA (Report of Departmental Committee of Agric. Livestock & Co-operatives on Crises Facing Sugar in Kenya, 2015).

Taxation was evaded by repackaging of industrial sugar which ended up competing table sugar subjected to full duty free taxation. Katunyi's Anti Corruption Report (2010) on the other hand indicates that Kenyan weak policy framework, high turnover of top management and political agitation for liberalization are factors that have worsens state of sugar industry. This report justifies poor performance of Kenyan sugar sub sector hence its decline in sustainability on liberalization which has given way to stiff competition to the local firms. But contrary to this argument, while assessing the impact of competition, Karen and Sigh (2010); indicated that poor performance of industries in developing nations (with sugar companies' not exempted) should not be blamed on liberalization per see but also on the companies 'persistent usage of ageing technology and inefficient agronomic practices. Another important government policy is Price Control. It has been necessitated by buyers' complaints that prices are high and sellers complain that prices are low. Price control comes in form of price ceilings (the legally set maximum price at which consumers have to buy products and sellers have to sell products to enable both parties eliminate dissatisfaction which retards exchange processes (Phantorn, 2008). Kenya is market based economy with a few state owned infrastructure enterprises but maintaining liberalized trade system without price control would worsen off its economy.

By 1973 Kenya witnessed depressed economy with 100% inflation and frozen liberal and multilateral supports because of absence of price control. During 1991-1993 Kenya began new economic liberalization reforms with an assistance of the World Bank and International Monetary Fund (IMF) and part of the reform was removal of price control and import licenses, which Mr. Nalo Minister for Eastern Africa Community, argued violated fundamental principles of world trade organization of which Kenya had subscribed to (Doing Business in Kenya, 2010). In addition, World Bank (2010) asserts that crippling sugar economy in Kenya is due to political interferences. The report further indicates that powerful politicians have been involved in importation of cheap sugar in the country and this ushered in stiff competition to the infant sugar companies in the country.

Critique of the Existing Literature relevant to the study.

Scholars such as Gold *et al.*,(2001), Lee & Choi (2000) in their contributions following the study of KM indicated that KM is an important driver to organization effectiveness and by extension performance but were not specific that the same could lead to sustainability. This is because not every level of performance may lead to sustainability. While Choi (2000) indicated in his findings that KMPs' could cause innovation and consequent organizational growth and performance on which he concurs with Rizwan & Mohamud (2012) but

were adamant to mention that the same could influence sustainability. Mills & Smith (2011) study also revealed direct relationship between KM and Performance but were silent on specific knowledge Management practices that have greater influence on performance and the extent at which the same could bring the firms sustainable growth.

Jean (2010) indicated that efficient KMPs' could lead to improvement in ecosystem which is an aspect of sustainability but like many other scholars, didn't consider intervening factors that may undermine the efficacy of KMPs' like implementation challenges and government policies.

Other scholars Beatrice & Smith (2010), Bowman & Tones (2010) in their studies also indicated that KMPs' could instill quality in an Organizations' human capital to enable a firm gain competitive advantage but ignored to capture the fact that profitability which is the resulting effect of competitiveness is an indicator of economic sustainability. Rizwan & Mohamud (2012) draws attention of researchers by reporting positive relationship between KMPs' and performance from his survey study that was conducted in developed countries in multinational corporations. However, like his colleagues they didn't point out explicitly specific sustainability parameters.

Tussler (1998) pointed out that efficient KMPs' could lead to innovation with positive economic implications to firms, he didn't however justify this possibility in the wake of firms' challenges of implementation and intervention of government policies that could put sustainability at stake. Kim (2011) from his case study of KM of Public organizations in Virginia 23 Local CPS Departments failed to acknowledge that KMPs' could influence performance. His findings contradict Radwan et al.,(2012) report of survey study of Pharmaceutical firms in Jordan that Knowledge Management (sharing) had positive influence to innovation and profitability. However, no-matter the contradictions and irony, these results were of survey and case studies which limited the scope of their findings to warrant general applicability. It is therefore important to note that sustainability is only possible when firms have no bottlenecks emanating from economics, infrastructure, culture, human capital and government policies. Eliot (1996) also tried to argue that effective KMPs' could result into product innovation and profitability but didn't consider the intervening effects of factors that affect market dynamics as the same could demean the value of innovation, profitability, growth and sustainability. Finally, these studies mainly concerned themselves in the medical and engineering enterprises. Very little interest had been shown in manufacturing sectors especially the sugar companies and did not look at other factors that affect market dynamics such mediating influence of government on diverse corporate sustainability.

Research Gaps

The study on KM had been conducted in developed countries such as Italy, Malaysia and Pakistan, Rizwan & Mohamud (2012) amongst multinational Pharmaceutical companies and Microsoft & Hewlett Packard where they established that there was relationship between KMPs' and performance. Similarly, a study done in Norway, Dingsoryr (2002) in medium sized companies also established that an intranet based Knowledge management practices (KMPs') for knowledge cartography and knowledge repository for larger software was significant in influencing performance and growth. Even though Rizwan and Mohamud (2012) studies confirmed that there was significant association between KMPs' with performance in Multinational firms, he didn't take into consideration the intervening forces of government policies. These studies however, were in developed nations, conducted using survey and case studies in engineering and pharmaceutical firms with little work reported in Africa and particularly in sugar companies.

Although the previous researchers who obtained empirical support used case studies (Zaim, 2007) and survey indicated positive relationship, their findings could not be generalized to a wider population. Because this study is purposed to be used for general application, descriptive survey design has been considered appropriate. Furthermore, no previous studies had captured government policies and its moderating influence on the relationship between KMPs' and organizational sustainability. It implies that there have been inadequate empirical verifications on examining the intermediating influence on the relationship between KMPs' and organizational sustainability which fuels the urgency for this study. This thesis on a 'an assessment of government policies and its moderating influence on the relationship between KMPs' and organizational sustainability of sugar companies in Kenya' therefore fills these gaps.

III. RESEARCH METHODOLOGY

Research Design

Design is a scheme or plan that is used to conduct the study to generate answers to research questions, (Noum, 2007; Orodho, 2003) and is often chosen in research process to provide a basis upon which the study is configured and link all aspects of research to provide meaning (Kothari, 2008; Laurel, 2011). The suitability of descriptive survey in an extensive study of this kind is its economy in terms of time and cost in research process (Osoo & Onen, 2005) and that allows the use of questionnaires and interview guide to solicit information (Orodho, 2003) and the fact that it will provide answers to research questions in order to determine

current position of given situation in respect to one or more variables (Cohen, Manion & Marrison, (2011) further justifies its choice in this study.

Population, Sample and Sampling Techniques

Population

This study focused on a population of 1200 managerial staff of five state owned operational sugar companies that spread across western and Nyanza provinces. These included Nzoia, Mumias, Sony, Chemelil and Muhuroni sugar companies' employees comprising of senior officers who are competent, experience and are able to provide reliable data. A target population for the study is what Sekaran & Bougie (2010) defines as the entire group of people, events or things with common observable characteristic that researcher is interested in and wishes to investigate.

Sample size

From the population of 1200 managerial staff within the sample frame, the study targeted a sample of 300 respondents arrived at using Yamane (1967) formulae at 95 % level of confidence with 5.0 margin of error. The obtained Sample size translates to 25% of the population, which was considered representative and adequate to minimize the likely error in generalizing findings of the study, since it is over 10% (Saunders et al., 2005, Mugenda & Mugenda 2003).The sample distribution in all the State Owned Sugar Companies was indicated in Table 3.1.

Table 3.1: Population Sample, Managerial Staff and Sample Size distribution.

Sugar Companies	Sample	Population	Managerial Sample	StaffSize(n)
Mumias		1860	300	60
Sony		1700	280	60
Muhoroni*		800	180	60
Nzoia		1685	270	60
Chemelil		795	180	60
Miwani **		-	-	-
Total		6840	1200	300

Source: Companies HR Depts., (2016)

* Partial receivership ** Full receivership.

Sampling Technique

The study adopted non probability sampling approach and in particular purposive random sampling technique. According to Kinoti (2009) purposive technique is relevant and popular with experienced studies like this one that required specific information from specific individuals, the reason choice of these techniques of sampling were made. It is further justified by Onen & Osoo (2005) that random and purposive focus the researcher's attention on the intended respondents and enables him/ her appreciate the economy of time and they often leads to collection of accurate information.

Data Collection Instruments.

These were instruments which aided the researcher in gathering of data. This study developed and used structured and semi-structured questionnaire as well as Interview guide which were self-administered. Significantly, the choice of questionnaires was based on the fact that they required little time, low cost of training for research assistants to administer and less cost of administration generally and generate data that were also easy to analyze, probed interviewee's independent views, gave respondents freedom, spontaneity of answers and eased the testing of hypotheses (Vinten, 1995). Interview guide was also appropriate for this study since it enabled he researcher to check against ambiguity and inadequacy in the main instrument (Igwe, 2005

Reliability

Reliability has been defined as the degree of consistency that the instrument or procedure demonstrates (Best And Kahn, 1993). To ensure reliability, the instruments were pilot tested and re-tested during pre-visits and this permitted necessary modifications on the instruments.

Test-Retest Reliability

Test-retest reliability refers to the temporal stability of a test from one measurement session to another. The correlation between scores on the identical tests given at different times operationally defines its test-retest reliability (Oso and Onen, 2005). Using the test-retest method where questionnaires were administered to the

same group at two time intervals of a period of one month, correlation between scores were computed using Pearson's Product Moment formula;

$$r = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{\{N \sum x^2 - (\sum x)^2\} \{N(\sum y^2) - (\sum y)^2\}}}$$

Where: N is number of respondents; x is test 1; y is test 2 and \sum is summation.

The correlation value which was computed between the scores at the two different times gave r-coefficient of 0.72. According to Orodho (2008) and Field (2009) this was high since its falling between a coefficient value of 0.70 - 0.80 which is considered adequate to authenticate the instruments' reliability and suitability.

Internal Consistence of the Items

Internal consistency was established using Cronbach's alpha coefficient was used in this study. Internal consistency reliability of the instruments was obtained by computing Cronbach's alpha (α) using SPSS as shown in Table 3.2 below which reveal that questions on government policies had adequate reliability for the study.

Table 3.2: Internal Consistence: Cronbach's Alpha Results for the Questionnaire

Scale	No. Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
Government Policies	9	.755	.744

Source: Author (2016)

Table 3.2 shows that the internal consistency derived from the 42 items (for all the subscales in the questionnaire) scored high Cronbach's Alpha of (α) =.755 which was considered adequate for the study since it exceeds 0.70 Orodho (2008) and therefore generally suitable for the study

Validity

Content Validity Index (CVI) of 0.756 which was above 0.7 which is the acceptable minimal threshold adequate validity according to Hair *et al.*, (1998), it was concluded that the instruments were of adequate validity.

Data Collection Procedure

This was the outline or plan in which the intended data were to be collected. Two categories of data, primary and secondary were collected of which primary data were collected through self administration of questionnaires and interview guide. In the process the researcher complied with ethical principles requiring keeping the identity of respondents in anonymity and putting to use gathered data to its predetermined academic purpose (Gatara, 2010; Hoyle *et al.*, 2002). The researcher also ensured that secondary data were collected through the review of past empirical studies in journals, published thesis and companies' documentary analysis sources which had to be acknowledged in the reference to avoid blames of plagiarism (Mugenda & Mugenda,2003).

Pilot Study

The researcher made pre-visit to companies that were intended for the study before a full scale study was carried out. This made it possible for the researcher to pre-test the instruments to ensure that they were suitable so that they justify the claims on what they were able to measure (Saunders *et al.*, 2008) and also enables the researcher to re-align the instruments to study objectives so that their outcome could answer the research questions. Mugenda and Mugenda (2005) also portend that a pilot study is a small scale preliminary study conducted in order to evaluate feasibility in an attempt to improve upon the study design prior to performance of a full scale one.

3.8: Data Processing and Analysis

This study used both quantitative and qualitative approaches involving both descriptive and inferential statistics in analyzing data. Quantitative data were entered into the computer for analysis using SPSS version 22 that was able to handle large amount of data and due to its wide spectrum it befits social sciences to which the study belongs (Martin & Acuna,2002). Pearson's Coefficient correlation technique was also used in the analysis due to its ability to test the hypotheses on the nature of influence of independent variable on dependent variable (Cooper & Schindler, 2003; Kothari, 2008). Dealing with an intervening variables data were regressed on independent variables to determine the moderating effects on them (Aiken & West, 1991). The regression

Analysis was used due to its ability to test the nature of influence of independent variable on dependent variable (Cooper & Schindler, 2003; Kothari, 2008).

Model Specification

The intervening regression equation used to test data is expressed as shown below:

Model 1:

It is a regression of the dependent variable and the independent variables
 $P_j = a + \beta_1 X_{1ij} + \epsilon$ (1)
 Where: P = Organizational Sustainability j
 X = KMPs' measured by (KA_j; KS_j KApp_j and IC_j) in which
 KA_j = Knowledge acquisition j
 KS_j = Knowledge sharing j
 KApp_j = Knowledge application j
 IC_j = KMPs' implementation
 i and j represent the variables and organizations respectively
 ε = error term
 β₁ = regression co-efficient.

Model 2:

It introduces the government policy in order to establish their effect in the general organizational sustainability
 $P = a + \beta_1 X_{ij} + \beta_2 Y_2 + \epsilon$ (2)
 Where: P; X_{ij} and e are as defined in equation 3.1 above while
 Y = is the intervening variable, that is, government policy:

Model 3:

It combines dependent independent variables' the potential intervening variable and the cross product interaction term of the dependent and the potential intervening variable:
 $P = a + \beta_1 X_{ij} + \beta_2 Y_{2ij} + \beta_3 X Y_{ij} + \epsilon$ (3)
 Where: XY is the interaction term between KMPs' and government policy
 β₁ β₂ and β₃ are the regression coefficients.

The interaction term XY as shown in the equation is entered last to ensure that the co-efficient is not confounded with variance arising from the main effects of the variables. In addition Y can be considered an intervening variable only if the change in R² for the third equation compared to the second equation is statistically significant.

IV. RESEARCH FINDINGS AND DISCUSSION

Introduction

This chapter presents the findings and interpretation of the study on demographic information and on the sub theme on quantitative terms analyzed using both descriptive and inferential statistics. All tests of significance were computed at α = 0.05.

Demographic Information of the Respondents

4.2.1: Questionnaire Return Rate

The return rate of questionnaires from the respondents revealed that the questionnaires were adequate for the study. This is presented in Table 4.4.

Table 4.4: Summary of Rate of Response

Respondents	Questionnaires administered	Questionnaires returned	Return rate (%)
1200	300	250	83.3

Source: Survey data

Out of 300 questionnaires administered to the employees 250 of them were returned for data analysis, which translates to 83.3% response rate. According to Oso and Onen (2011) an acceptable response rate for survey questionnaires administered personally by the researcher is achieved when the questionnaire return rate is at least 80%.

Respondents' Gender Distribution

The gender of the respondents was summarized, as in Table 4.5.

Table 4.5: Respondents by gender

Gender	Frequency	Percentage
Male	230	92.0
Female	20	8.0
Total	250	100.0

Source: Survey data

Table 4.2 indicates that 250 respondents involved in the study were comprised of 230 (92%) males and 20 (8.0%) females. This implies that there is poor gender representation in the appointments since it does not reflect affirmative action rule which require at least 30% representation of female gender in a public organizations.

Respondents by Age

Table 4.3 shows the age distribution of the managerial employees of the state owned sugar companies in Kenya as represented by the ones who were sampled for the survey.

Table 4.6: Distribution of Age of the Respondents

Age (Years)	Frequency	F (%)	Cumulative %
24-34	75	30.0	30.0
35-45	113	45.2	75.2
46-56	57	22.8	98.0
> 56	5	2.0	100.0
Total	250	100.0	

Source: Survey data

It is evident from Table 4.3 that a significant proportion, 113 (45.2%), of the employees of the state owned sugar companies in Kenya are in the age group of 35-45. Only 5 (2.0%) and 75 (30.0%) were aged above 56 years and under 35 years, respectively. This implies that 180 (68%) of the managerial employees in sugar companies are of working age between 35 – 56 years and are capable of implementing KMPs' that are geared towards achieving sustainability in the sugar companies.

Respondents Work Experience

Table 4.4 shows the distribution of the managerial employees work experience in terms of years.

Table 4.7: Respondents by work experience in the company

Years	Frequency	F (%)	Cumulative %
0-5	63	25.2	25.2
6-11	75	30.0	55.2
12-17	105	42.0	97.2
>17 years	7	2.8	100.0
Total	250	100.0	

Source: Survey data

The findings of the study revealed that majority of the managerial staff of the state owned sugar companies are of adequate work experience, as reflected by a proportion 105 (42%) of the employees who took part in the survey who had 12-17 years of work experience. This means that many of the employees were capable of effectively implementing improvements and quality strategies for the companies' sustainability. Similarly, some 5 (3%) of its workforce had served for over 17 years and capable of providing the requisite technical orientation, induction and internal consultancy to the newly (0-5 years) recruited staff constituting 63 (25.2%) of the managerial staff.

4.2.5: Respondents' Marital Status

The marital status of the managerial employees the operational state owned sugar companies who sampled for the study was shown in Figure 4.1.

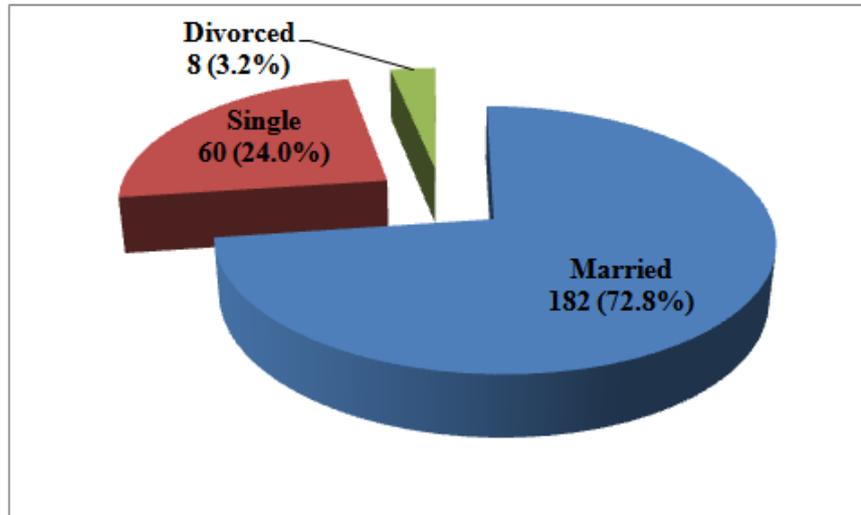


Figure 4.1: Respondents Marital Status

It was revealed by the exploratory data analysis that many 182 (72.8%) of the managerial employees in the sugar companies were married. This implies that many of the managerial staff were responsible and could be able to demonstrate commitment to the strategic goals of the organizations. Only 60(24%) and 8(3%), who were single and divorced respectively, could suffer job-family role conflicts and psychological stress. However, it is the duty of the top management to initiate stress management programs for such kind of staff in order to reduce their chances of digressive stressful confrontations to the employees whom they supervise as this could adversely affect staff morale and organizational performance and sustainability.

Respondents' Academic Qualification

The summary of respondents' academic qualifications was summarized in Figure 4.2. This information was considered vital for this study because academic qualification is perquisite quality of employees in regard to their capability of implementing KMPs.

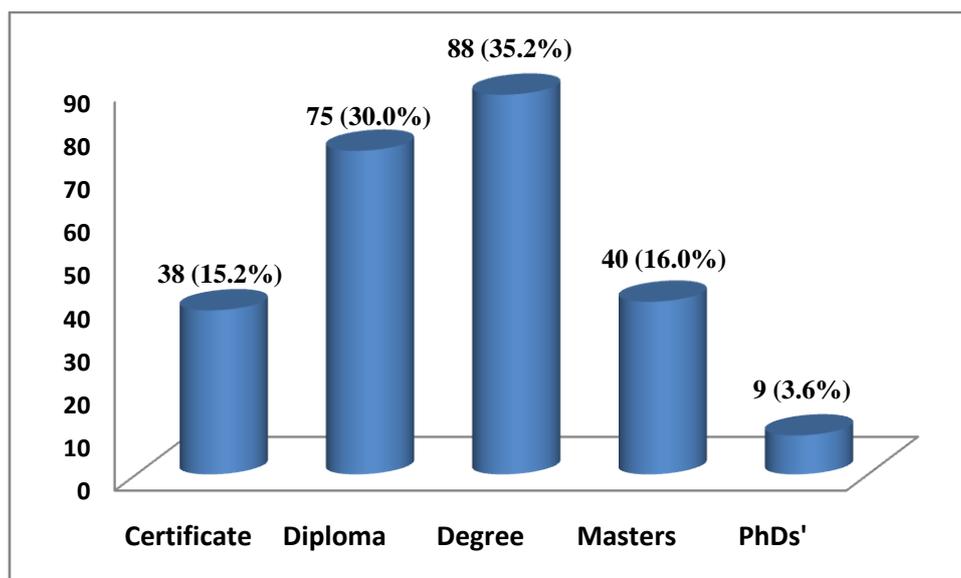


Figure 4.2: Distribution of Respondents' by Qualifications academic.

Figure 4.2 indicates that the sampled managerial employees of the state owned sugar companies were comprised of nearly 49 (19.6%) who were holders of Masters or PhDs' degrees. Those who held bachelor degrees were 88 translating to 35.2% of management team and 75(30 %) held Diploma in academic qualifications. This finding implies that most of the employees had adequate managerial qualification for effective supervisory roles to steer the industry towards effective performance and sustainability.

However, it emerged that 38 (15.2%) of the employees only had certificate academic qualifications. The implication of this finding is that the companies ought to develop skills and competencies of their junior managerial staff in sugar technology through scholarship and internship training in world leading sugar producing countries such as Brazil, South Africa and Mauritius.

Findings on the Level of Sustainability of Sugar Companies in Kenya

The study sought to investigate the level of sustainability in sugar industries in Kenya. This was necessary because it was the dependent variable. The managerial employees were presented with five-itemed-Likert-scaled questionnaire whose constructs were based on the indicators of sustainability. The respondents were to rate their level of agreement on the statements from strongly agree to strongly disagree. The indicators of sustainability explored included; improved growth of the industry, product diversification, institutional infrastructure development, withstanding competition and expansion of product market. The findings are presented and discussed from Table 4.8.

Table 4.8: Sustainability of Sugar Companies (n=250)

Item statement	SA	A	N	D	SD	Mean	Std.Dev.
There has been improved growth of this company over the years as reflected in its ability to assist the community maintain and improve their natural resources.	37 (14.8%)	123 (49.2%)	50 (20.0%)	14 (5.6%)	26 (10.4%)	3.24	0.65
Our company has registered expansion of product market in the recent years.	44 (17.6%)	106 (42.4%)	32(12.8%)	38 (15.2%)	30 (12.0%)	3.92	0.95
This company has made tremendous infrastructure development.	93(37.2%)	71(28.4%)	6(2.4%)	60(24.0%)	20(8.0%)	3.41	1.26
There has been product diversification signifying growth of this company.	58(23.2%)	100(40.0%)	22(8.8%)	25(10.0%)	45(18.0%)	3.74	1.12
The company has made efforts to withstand competition resulting from liberalised market	61(24.4%)	89(35.6%)	34(13.6%)	41(16.4%)	25(10.0%)	2.87	1.08
Total Average Mean						3.43	0.85

Key: SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree and SD-Strongly Disagree
Source: Survey data

From the findings of the study, it is evident that the sugar companies in Kenya are moderately (mean=3.37; standard deviation=0.83) sustainable, with the managerial employees whose views were taken rating indicators of sustainability between 2.87 to 3.92, as shown in Table 4.5. It emerged that nearly two thirds 160 (64.0%) of the respondents accepted that there has been improved growth of their company over the years, which they argue was reflected in their company's ability to assist the community in maintaining and improving their natural resources.

This finding of the study concurs with DELTA (2000) who had argued that sustainability is all about guaranteeing quality life through social progress while meeting people's needs, protecting environment, ensuring prudent use of natural resources and maintaining stable economic growth and empowerment. Similarly, 150 (60.0%) of respondents affirmed that their company had registered expansion of product market in the recent years.

In addition to expansion of product markets, the findings of the study established that there has been product diversification in the sugar companies signifying growth of the companies, as indicated by 158 (63.2%) of the employees who took part in the survey. Only 40 (16.0%) of the respondent did not believe that their company had registered any significant improvement. However, it was established that many of the sugar companies have made efforts to withstand competition resulting from liberalized market. This was confirmed by 150 (60.0%) of the managerial employees who believed that many of the sugar companies have tried to counter the effects of liberation of the sugar market. These findings are supported by Lu, Wang, Tung & Lin (2010) who believe that firms facing stiff competition ought to increase their value creation processes to attain competitive advantage. On the contrary, some respondents believed that their company had not acquired adequate level of

sustainability. For example, whereas majority of the respondents believe their company enjoy product diversification which signifying growth of the company, 70 (28.0%) of the managers who took part in the survey rejected the assertion that their company enjoy product diversification. On the same note, 69 (26.4%) of the respondents said their company had not made enough efforts to withstand competition occasioned by the liberalization in the sugar industry. In fact, 68 (27.2%) respondents alluded that their company had not registered any expansion of product market in the recent years.

4.7: Government policies mediating influence on the relationship between KMPs' and sustainability of sugar companies in Kenya

This objective of the study was to establish whether Government policies have any significant mediating influence on the relationship between KMPs' and sustainability of sugar companies in Kenya. The views of the managerial employees were sought on their opinions on the intervening role of the government policy in influencing implementation of Knowledge Management Practices on sustainability. Their views were computerized in percentage frequencies as in Table 4.20.

Table 4.20: Government policies mediation on the relationship between KMPs' and sustainability of sugar companies in Kenya

Item	SA	A	N	D	SD	Mean	Std. Dev
Gp1	28(11.2%)	172(68.8%)	12(4.8%)	31(12.4%)	7(2.8%)	3.73	0.91
Gp2	22(8.8%)	172(68.8%)	12(4.8%)	26(10.4%)	18(7.2%)	3.62	1.03
Gp3	39(15.6%)	150(60.0%)	13(5.2%)	19(7.6%)	29(11.6%)	3.60	1.18
Gp4	160(64.0%)	40(16.0%)	13(5.2%)	18(7.2%)	19(7.6%)	4.22	1.27
Gp5	147(58.8%)	43(17.2%)	13(5.2%)	25(10.0%)	22(8.8%)	4.07	1.35
Gp6	136(54.4%)	67(26.8%)	6(6.4%)	16(10.8%)	25(12.0%)	4.09	1.31
Gp7	16(6.4%)	161(64.4%)	16(6.4%)	27(10.8%)	30(12.0%)	3.42	1.14
Gp8	21(8.4%)	157(62.8%)	14(5.6%)	32(12.8%)	26(10.4%)	3.46	1.14
Gp9	10(4.0%)	110(44.0%)	11(4.4%)	45(18.0%)	74(29.6%)	3.73	0.91
Total Average Mean						2.75	1.38

Key: SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree and SD-Strongly Disagree

Source: Survey data

The findings of the study revealed that government policies such as liberalization of trade and price control among other intervening variables had substantial mediating influence on the relationship between KMPs' and sustainability of sugar companies in Kenya. For instance, it was established that majority of the respondents held the assertion that involvement of government in sugar industry mediates the influence of implementation of KMPs on sustainability. This was showed by 190 (76.0%) of the respondents who argued that politicization of the sugar industry in Kenya has negatively affected the influence of knowledge application in sustaining the developments of their company.

On the same note, acquisition and sharing of knowledge which are key tenets of implementation of KMPs' have negatively been affected by political involvement in the industry, which intuitively confounds the influence of KMPs' in sustaining the developments of sugar companies. This point was advanced by the majority 200 (80.0%) of the employees who were involved in the study.

Similarly, the findings of the study show that liberalization of the sugar industry in terms of the country's trade in sugar has to a great extent negatively weakened the positive effect of knowledge acquisition, knowledge sharing and knowledge application (KMPs') and in influencing implementation of the same in promoting sustainability of sugar companies in Kenya, as confirmed by 189 (75.6%) of the study participants. This finding concurs with Miller (1991) who blamed liberalization policy for causing mortality of steel companies in U.S.A and justifies Zambian Sugar Report (2009) that when the government permits liberalization they should provide heavy subsidies to sustain industries. It means the company's application efforts remain ineffective in a country that permits liberalization of trade.

The findings also support Odek (2005) who indicated that Kenyan involvement in economic integration led to removal of trade barriers as it subscribed to PTA and COMESA, permitted liberalization in trade and industry and in particular for importation of 200,000 metric tonnes. However as a result of these trade policy packs, the country realized high influx of cheap sugar imports by sugar cartel operators beyond its subscription from non-COMESA states.

This weakened Kenyan Sugar economy in terms of its growth and sustainability, in spite of the effort made by sugar company management to implement Knowledge Management Practices.

These findings were supported by the results of the qualitative data from interviews with managerial staff. For instance, some respondents gave these remarks:-

"Liberalization of trade policy on sugar has led to illegal importation of cheap sugar from non-COMESA states such as India, Brazil, Mauritius, Sudan, Zambia and South Africa, causing biased competition and reducing the local industries market share. That damped sugar has threatened growth and sustainability of Kenyan sugar companies".

Respondent number 9 & 15

".....liberalization reduces firm's productive capacity and compromises the company's' sustainable initiatives. Influx of cheap sugar imports diminishes market share causing stock piles and reduces participation in social responsibilities due to low cash flow. That enormous effect of liberalization has made the sugar companies non-competitive due to weak regulatory policy framework that creates opportunity to sugar cartels under the guise of private millers to indulge in illegal sugar imports and repackaging in their own names at low costs".

Respondent 10 & 18

These findings are in line with the Report by Departmental Committee on Agriculture, Livestock & Cooperative (2004) that purports the cause of poor performance, dwindling growth and mortality of sugar companies is the signing of economic integration pack with COMESA states that liberalized the sugar market. This led to emergence of Cartels of sugar operators. The implication of these findings is that the government should subsidize the local industries to salvage them from eventual collapse and eminent mortality. This finding however disagrees with Mwangi (2000) who argued that liberalization is beneficial since it opens doors for investment opportunities and foster political understanding between countries. In the same light, it means that even though liberalization leads to poor cash flow it propels managerial staff to implement policies through knowledge sharing.

To this extent, it imply that liberation of the sugar market does not weaken the output of knowledge sharing in influencing sustainability companies which however disagrees with Katunyi Anti Corruption Report (2010) who had held the blame that free market in the sugar industry and political agitation are to blame for worsening the state of sugar industry in Kenya.

In regard to price control, the findings of the study reveal that a significant majority of 179 (71.2%), of the respondents held the general belief that lack of price control on local sugar has considerably mediated between implementation of knowledge application and organizational sustainability. Because sugar prices are not controlled, the local sugar becomes expensive in the same market that is over supplied by cheap sugar from non- COMESA states. Even though knowledge application in new product design and innovations should fetch market to the companies, besides cheap foreign sugar the Kenyan sugar cannot fetch market value due to cost implications. Due to disparity in comparative cost of producing sugar in Kenya with non-COMESA states there is no level ground for determining prices and therefore price mechanism cannot be used as a basis for predicting growth and sustainability. Because of cheap sugar which floods domestic market, the market share for local sugar has been narrowed causing stock piles in the company's warehouses and low cash flow to the companies.

Personal interview with other company managers confirm this:

"..Prices of sugar in Kenya are decontrolled making domestic sugar more expensive due to high comparative cost of production. That the government has failed to control sugar imports from non- COMESA states so as to create level ground for the thriveability and growth of domestic sugar industry."

Respondents 18 & 20

This statement implies that lack of price control of sugar is to blame for the woes in the industry in Kenya. Before 1994, sugar prices were set by government with a small margin of percentage for profits because the market then was semi liberalized. The implication of this finding is that despite efficient (KMPs') especially knowledge application, and efficient KMPs' implementation mechanisms disparity in comparative cost of sugar production between Kenya and non COMESA states cannot permit favorable competition in the domestic market.

This finding is confirmed by Market for Swazi Sugar (2001), which had affirmed that the cost of sugar production in Kenya is \$US 420 per metric ton, Sudan \$ US 230 per metric ton while in Swaziland it is \$ US 169 per metric ton. Hence, the government needs to urgently control sugar prices in Kenya to guarantee growth and sustainability of its companies. In a nutshell, this study confirms that politics, price control policy and market liberation have mixed mediating influence on the relationship between of KMPs' and sustainability of sugar companies in Kenya. This means that as much as KMPs' are capable of influencing sustainability of sugar industry, they suffer mediating effect of government policies. These finding relates to Resource Based theory and Intellectual Capital theory. The theories attribute organizations growth and sustainability to firms stock of

capital resources and their intellectuality enhanced by Knowledge Sharing, acquisition and application. The findings indicate that government policies (Liberalization and Price control) have partial mediating influence on the relationship between KMPs' and Sustainability.

This means that policies negative mediating influence disorganizes the companies' abilities to harvest from their Knowledge resources. It further means that government policies may influence negatively the companies' attempt to create and exploit organizations' Knowledge resources for success in realizing its technical, social, political and economic benefits.

Multiple Regression Analysis and intermediating influence:

Multiple Regression Analysis

The study sought to establish a linear model that could be used to predict the optimal level of sustainability of sugar companies in Kenya. This was done by use of standard multiple regression analysis, where all the three aspect of Knowledge Management Practices (knowledge acquisition, acknowledge sharing and knowledge application) were included in the model at once. It was suitable because it could help to investigate how well the set of the independent variables was able to predict the level of sustainability, in line with the views held by Hair, Anderson, Tatham and Black (1995). The analysis provided information about the relative contribution of each of the variables that make up the model. Each independent variable was evaluated in terms of its predictive power, over and above that offered by all the other independent variables. It enabled the researcher to know how much unique variance, in the dependent variable, each of the independent variables explained. Preliminary analyses had been performed to ensure no violation of the appropriate assumptions.

Table 4.21: Regression Analysis Model summary output

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.619 ^a	.383	.376	.44039	2.381

a. Predictors: (Constant), Knowledge Application, Knowledge Acquisition, Knowledge Sharing. b. Dependent Variable: Sustainability.

In the model summary (Table 4.21) the "R" column represents the value of R, the multiple correlation coefficient. It is a measure of the quality of the prediction of the dependent variable - sustainability. The value of r= .619 indicates a good level of prediction. However, the value of R Square (.383) indicates how much of the variance in the sustainability was explained by the model (which includes the variables of acquisition, sharing and application of knowledge). This value expressed as a percentage means that the model explains 38.3 % of the variance in sustainability of sugar companies in Kenya. However, to assess the statistical significance of the result it was necessary to look at the ANOVA results shown in Table 4.22.

Table 4.22: ANOVA: Implementation of KMPs' and Sustainability

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	29.633	3	9.878	50.931	.000 ^b
	Residual	47.710	246	.194		
	Total	77.342	249			

a. Dependent Variable: Sustainability b. Predictors: (Constant), Knowledge Application, Knowledge Acquisition, Knowledge Sharing

The ANOVA was used to test the null hypothesis that multiple R in the population equals 0. In this case the model reached statistical significance [F (3, 246) =50.931, R²=.383, sig.<.05], implying that the model was highly significant and adequate to explain the variance in sustainability of sugar companies in Kenya. The results reveal that the knowledge level of implementation of KMPs' can be used to significantly predict the level of sustainability, meaning the regression model is a good fit of the data.

Evaluating Contribution of each of the Independent Variables.

The study sought to investigate the level of contribution of the individual independent variables (the three types of KMPs') included in the model in the prediction of the level of sustainability. This was shown by coefficients values; a look at the coefficients values reveals that each independent variable contributes differently to the model, as in Table 4.23.

Table 4.23: Coefficient Output: Implementation of KMPs' and Sustainability

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound

(Constant)	-.039	.365		-.108	.914	-.758	.679
1 Knowledge Acquisition	.483	.083	.294	5.808	.000	.319	.646
Knowledge Sharing	.047	.068	.039	.697	.487	-.086	.180
Knowledge Application	.546	.055	.559	9.977	.000	.438	.654

a. Dependent Variable: Sustainability

To compare the different variables, a standardized coefficient was used because the values for each of the different variables were converted to the same scale so that they could be easily compared. From Table 4.23 it is evident that the three types of KMPs' contributed differently in influencing sustainability. For example, knowledge application had the highest impact on enhancing sustainability, while knowledge sharing made the least contribution to explain the variability of the model. The variable "knowledge application" had the largest beta coefficient $\beta=.559$, implying that it made the significantly stronger contribution in explaining the dependent variable. This means that a one standard deviation increase in "knowledge application" leads to a .559 standard deviation increase in predicted sustainability, with the other variables held constant.

Knowledge sharing had lowest beta value of $\beta=.039$, indicating that it made the least contribution to the model. It means a one standard deviation increase in knowledge sharing would only leads to a 0.039 standard deviation increase in sustainability with the other variables in the model held constant. It was therefore not surprising to discover that, despite the fact all the other two variables made a statistically significant ($p < .05$) unique contribution to the model, only "knowledge sharing" variable did not reach statistical significance ($p=.487$). Hence, it was concluded that it did not make significant unique contribution to the prediction of the dependent variable (sustainability).

The regression model

A regression model for the relationship between these independent variables and dependent variable is shown below.

In this model: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$.

Where: Y is sustainability of sugar companies in Kenya

X₁ Knowledge acquisition

X₂ Knowledge sharing

X₃ Knowledge application

Optimum level of sugar companies' sustainability was presented by:

$$-.039units + .483x_1units + .047 x_2units + .546 x_3units + error term$$

From the equation, the coefficients indicate how much the perceived sustainability varies with an independent variable when all other independent variables are held constant. For example, the unstandardized coefficient, X₁, for knowledge acquisition is equal to .483 means that for each one unit increase in knowledge acquisition, there is an improvement in sustainability of .483 units.

Similarly, for each one unit increase in the implementation of knowledge application, there is an increase in perceived sustainability of .546 units. However, for a unit increase in knowledge sharing, there is only .047 units increase in sustainability.

The coefficients of the variables were statistically significantly different from 0 (zero), except in the case of knowledge sharing. This was not surprising given that it had the least effect in variability of sustainability, removing it from the model would results to a minimal effect. However, it is concluded that the model was adequate to predict perceived sustainability of sugar companies; it was statistically significant [$F(3, 264) = 50.93, p < .05, R^2 = .383$]. This means that 38.3%, of the variability in the perceived sustainability of the sugar companies is explained by Knowledge acquisition, sharing and application. That is, other factors (not covered in this regression model) could account for about 61.7% of the model.

Hypothesis Testing

H₀: Government Policy has no statistically significant mediating influence on the relationship between KMPs' and Sustainability of Sugar Companies.

To establish the influence of mediating variable (Government Policies) on the implementation of KMPs' on sustainability of sugar companies, the hypothesis that mediation of Government Policy has no statistical influence of on relationship between KMPs' and Sustainability of Sugar Companies in Kenya was tested using both Zero order correlation and regression analysis.

For mediation to occur the study must show that; i) KMPs' must be correlated with sustainability; ii) KMPs' must be correlated with government policy; iii) government policy must be correlated with sustainability holding constant any direct effect of KMPs' on sustainability.

When the effect of government policy on sustainability is removed and KMPs' is no longer correlated with sustainability, then it is complete mediation. However, when the correlation between KMPs' and sustainability is reduced then it is partial mediation.

Table 4.31 Coefficient values for Interaction Effect of Government policy on KMPs'

Model		Unstandardized Coefficientsts		Standardized Coefficient	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.524	.128		4.088	.000
	Knowledge Management Practices	.721	.065	.575	11.071	.000
2	(Constant)	1.154	.147		7.873	.000
	Knowledge Management Practices	.011	.116	.009	.096	.924
	KMPs*Government Policy	.190	.027	.659	7.132	.000

a. Dependent Variable: Sustainability of sugar companies

It is evident from the table that direct effect of KMPs' on sustainability alone had a higher Beta weight (Beta=.721) than with the interaction effect (beta=.190) reflecting that an increase of KMPs' by one unit results to .721 improvement in sustainability of sugar companies, however, an increase of the interaction effect by one unit only results to improvement of sugar companies' sustainability by only .190 which is a decrease. This implies that there is a partial mediation effect. However the reduction rate does not have statistical significance on sustainability of sugar companies. Therefore from the coefficient Table 4.28 the mediation effect is not statistically significant (Sig. F Change = 0.05).

Table 4.32 Coefficient of Model-KMPs' Predicting Government Policy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.680 ^a	.462	.458	.44084	.462	106.248	.000
2	.683 ^b	.467	.460	.44007	.005	1.869	.173

a. Predictors: (Constant), Knowledge Management Practices, Government Policy

b. Predictors: (Constant), Knowledge Management Practices, Government Policy, KMPs*Government Policy

It is evident from Table 4.28 that KMPs' contributed to R² .462 ; However with mediation of government policy it comes to R² = .467 implying that the interaction effect of KMPs' and government policy only accounted for R² = .005 (0.5%) which is negligible. Adding the interaction effect, that government policy on KMPs', the overall Beta weights goes up but at insignificant rate as shown in Table 4.28. Hence, given that there was adequate evidence to reject the null hypothesis, it was concluded that there is effect of Government policy on the relationship between KMPs' and sustainability of sugar companies even though, the effect was insignificant.

4.5.6: Multiple Regression Analysis

The study sought to establish a linear model that could be used to predict the optimal level of sustainability of sugar companies in Kenya. This was done by use of standard multiple regression analysis, where all the four aspect of Knowledge Management Practices (knowledge acquisition, acknowledge sharing, knowledge application and knowledge conversion) were included in the model at once. It was suitable because it could help to investigate how well the set of the independent variables was able to predict the level of sustainability, in line with the views held by Hair, Anderson, Tatham and Black (1995).

The analysis provided information about the relative contribution of each of the variables that make up the model. Each independent variable was evaluated in terms of its predictive power, over and above that offered by all the other independent variables.

It enabled the researcher to know how much unique variance, in the dependent variable, each of the independent variables explained. Preliminary analyses had been performed to ensure no violation of the appropriate assumption.

Table 4.33 Regression Analysis Model summary output

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
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1	.680 ^a	.462	.451	.44354
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a. Predictors: (Constant), KMPs*Government Policy, Knowledge Acquisition, Knowledge Sharing, Knowledge Application, Knowledge Conversion

b. Dependent Variable: Sustainability of sugar companies

The above model indicates the value of R=.680 column represented in multiple correlation coefficients. It is a measure of the quality of the prediction of the dependent variable – sustainability showing a good level of prediction.

However, the value of R² = .462 indicates how much of the variance in the sustainability of sugar industries was explained by the model (which includes the variables of acquisition, sharing, application and conversion of knowledge). This value means that the model explains 46.2 % of the variance in sustainability of sugar companies in Kenya.

This is the proportion of variance in sustainability that is explained by the independent variables; it is the proportion of variation accounted for by the regression model above and beyond the mean model. However, to assess the statistical significance of the result it was necessary to look at the ANOVA results shown in Table 4.30.

Table 4.30 ANOVA: Implementation of KMPs' and Sustainability

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.299	5	8.260	41.987	.000 ^b
	Residual	48.000	244	.197		
	Total	89.299	249			

a. Dependent Variable: Sustainability of sugar companies

b. Predictors: (Constant), KMPs*Government Policy, Knowledge Acquisition, Knowledge Sharing, Knowledge Application, Knowledge Conversion.

The ANOVA table shows statistical significance of [F (5, 244) = 41.987, R²=.462, sig.<.05], implying that the model was highly significant and adequate enough to explain the variance in sustainability of sugar companies in Kenya. In other words, the results show that the knowledge of the level of implementation of KMPs' can be used to significantly predict the level of sustainability, meaning the regression model is a good fit of the data.

4.5.7: Regression model Specifications for the study

To develop predictive regression model the coefficient output in Table 4.35 were used.

Table 4.35 Coefficients values for Interaction Effect

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1	(Constant)	1.067	.154	6.946	.000
	Knowledge Acquisition	.063	.041	1.549	.123
	Knowledge Sharing	.155	.075	2.056	.041
	Knowledge Application	.021	.073	.289	.773
	Knowledge Conversion	.049	.086	.573	.567
	KMPs*Government Policy	.170	.028	5.900	.000

a. Dependent Variable: Sustainability of sugar companies

A regression model for the relationship between these independent variables and dependent variable is shown below.

In this model: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \text{Interaction} + \epsilon$.

Where: Y is sustainability of sugar companies in Kenya

- X₁ Knowledge acquisition
- X₂ Knowledge sharing
- X₃ Knowledge application
- X₄ Knowledge conversion
- X₅ Mediation/Interaction effect

Optimum level of sugar companies' sustainability was presented by:

$1.067 \text{ units} + .063x_1 \text{ units} + .155 x_2 \text{ units} + .021 x_3 \text{ units} + .049 x_4 \text{ units} + .171x_5 \text{ units} + \text{error}$.

From the equation, the coefficients indicate how much the perceived sustainability of sugar industry varies with an independent variable when all other independent variables are held constant. It is concluded that the model was adequate to predict perceived sustainability of sugar companies; it was statistically significant according to Table 4.29, $R^2=0.462$, $\text{sig}.<.05$]. This means that 46.2 %, of the variability in the perceived sustainability of the sugar companies is explained by implementation of KMPs'. The belief is that other factors (not covered in this regression model) could account for about 53.8% of the model.

V. Discussion On The Findings Of The Study

The objective of the study was to establish the influence of government policies on the relationship between KMPs' and sustainability of sugar companies in Kenya. The opinions of the managers were sought on the intervening role of the government policy trade liberalization and pricing control and how they influence implementation of KMPs' to cause sustainability sugar companies in Kenya.

Their views were computerized in percentage frequencies as in Table 4.27 which revealed that government policies such liberalized sugar import trade and price control, among other intervening variables had mediating effect on the influence of implementation of KMPs' on sustainability of sugar companies in Kenya. For instance, it was established that a significant majority of the respondents held the assertion that involvement of government in sugar industry mediates the influence of implementation of KMPs' on sustainability.

This was showed by most 190 (76.0%) of the respondents who argued that politicizing the sugar industry in Kenya has negatively affected the influence of knowledge application in sustaining the developments of their company.

On the same note, acquisition and sharing of knowledge which are key tenets of implementation of KMPs' that have negatively been affected by political involvement in the industry, which intuitively confounds the influence of KMPs' in sustaining the developments of sugar companies. This point was advanced by the majority 200 (80.0%) of the employees who were involved in the study.

Similarly, the findings of the study show that liberalization of the sugar industry has to a great extent negatively weakened the positive effect of knowledge acquisition, knowledge sharing and knowledge application in influencing implementation of KMPs in promoting sustainability of sugar companies in Kenya, as confirmed by 189 (75.6%) of the study participants.

This finding concurs with Miller (1991) who blamed liberalization policy for causing mortality of steel companies in U.S.A and justifies Zambian Sugar Report(2009) that when the government permits liberalization they should provide heavy subsidies to sustain industries. It means the company's application efforts remain ineffective in a country that permits liberalization of trade.

The findings also support Odek (2005) who indicated that Kenyan involvement in economic integration led to removal of trade barriers as it subscribed to PTA and COMESA, permitted liberalization in trade and industry and in particular for importation of 200,000 metric tonnes. However as a result of these trade policy packs, the country realized high influx of cheap sugar imports by sugar cartel operators beyond its subscription from non-COMESA states.

This weakened Kenyan Sugar economy in terms of its growth and sustainability, in spite of the effort made by sugar company management to implement Knowledge Management Practices. These findings were supported by the results of the qualitative data from interviews with respondents indicating that...

'Liberalization trade policy on sugar has led to illegal importation of cheap sugar from non-COMESA states such as India, Brazil, Mauritius, Sudan, Zambia and South Africa, causing unbiased competition and reducing the local industries market share.

They purported that enormous effect of liberalization has been occasioned with weak regulatory policy framework that creates opportunity to sugar cartels under the guise of private millers to indulge in illegal sugar imports and repackaging in their own names at low costs.'

These findings are in line with the Report by Departmental Committee on Agriculture, Livestock & Cooperative (2004) that purports the cause of poor performance, dwindling growth and mortality of sugar companies is the signing of economic integration pack with COMESA states that liberalized the sugar market. This led to emergence of Cartels of sugar operators. The implication of these findings is that the government should subsidize the local industries to salvage them from eventual collapse and eminent mortality.

This finding however disagrees with Mwangi (2000) who argued that liberalization is beneficial since it opens doors for investment opportunities and foster political understanding between countries. In the same light, it means that even though liberalization leads to poor cash flow it propels managerial staff to implement policies through knowledge sharing.

To this extent, it imply that liberation of the sugar market does not weaken the output of knowledge sharing in influencing sustainability companies which however disagrees with Katunyi Anti Corruption Report (2010) who had held that allowing free market in the sugar industry and political agitation are to blame for the woes in the state of sugar industry.

In regard to price control, the findings of the study reveal that a significant majority, 179 (71.2%), of the respondents held the general belief that lack of price control on local sugar has considerably mediated between implementation of knowledge application and organizational sustainability. Because sugar prices are not controlled, the local sugar becomes expensive in the same market dominated by cheap sugar from non-COMESA states. Even though knowledge application in new product design and innovations should fetch market to the companies, besides cheap foreign sugar the Kenyan sugar cannot fetch market value due to cost implications.

Due to disparity in comparative cost of producing sugar in Kenya with non-COMESA states there is no level ground for determining prices and therefore price mechanism cannot be used as a basis for predicting growth and sustainability. Because of cheap sugar which floods domestic market, the market share for local sugar has been narrowed causing stock piles in the company's warehouses and low cash flow to the companies.

This finding is in concurrence with the descriptive data from the surveyed respondents who indicated that controlled prices of sugar in Kenya have made domestic sugar more expensive due to high comparative cost of production. This statement implies that lack of price control in sugar industry is to blame for the woes in the industry in Kenya. The implication of this finding is that despite efficient (KMPs') especially knowledge application, disparity in comparative cost of sugar production between Kenya and non COMESA states cannot permit favorable competition in the domestic market.

This finding is confirmed by Market for Swazi Sugar report (2001) which had affirmed that the cost of sugar production in Kenya is \$US 420 per metric tonne; Sudan \$ US 230 per metric tonne while in Swaziland it is \$ US 169 per metric tonne, that the non COMESA states have a lower comparative costs in sugar production compared to Kenyan making local sugar more expensive.

In a nutshell, this study confirms that political involvement, price control policy and market liberation have mixed mediation effect on the influence of implementation of KMPs' and sustainability of sugar companies in Kenya. This means that as much as KMPs' are capable of influencing organizational sustainability of sugar industry, they however, suffer mediating effect of government policies.

To establish the effect of intervening variable (Government Policies) on the influence of implementation of KMPs' on sustainability of sugar companies the null hypothesis was tested using both zero order correlation and regression analysis which were computed in Table 4.28.

The study confirmed the occurrence of mediation by i) correlating KMPs' with sustainability; ii) correlating KMPs' with government policy and iii) correlating government policy with sustainability holding *ceteris paribus* any direct effect of KMPs' on sustainability. When the effect of government policy on sustainability is removed and KMPs' is no longer correlated with sustainability, then it is complete mediation. However, when the correlation between KMPs' and sustainability is reduced then it is partial mediation.

VI. SUMMARY, CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter presents the summary, conclusion and recommendations based on the findings of the study as follows.

Summary

This study involved managerial staff from all the operational state owned sugar companies on the influence of Knowledge management practices (KMPs') on their sustainability in Kenya. The study also looked at government policies and their moderating influence on relationship between KMPs' and sustainability. The study adopted descriptive statistics in analyzing qualitative data and inferential statistics in particular Pearson Correlation Coefficient, multiple regressions in analyzing quantitative data. The demographic aspect of this study reveals that the sugar companies in Kenya have 250 high profiled managerial staff with good academic and experiential qualifications, responsible and committed despite poor gender representations and were capable of steering the companies to its ultimate growth and sustainability. However, the companies suffer from poor gender representation. This study confirms that government policies have an insignificant positive influence on relationship between KMPs' and sustainability. It is on this basis that study reject null hypothesis that government policy has no statistical influence on the relationship between KMPs' and sustainability of sugar companies in Kenya.

Conclusion

Having examined the influence mediating influence of government policy on the relationship between KMPs' and sustainability, the following conclusions were made:-

That Government policies have mediating influence on the relationship between KMPs' and sustainability and government has to put checks and control on its trade liberalization and pricing policies to reduce market saturation by sugar from cheap non- COMESA regions to allow the companies benefit from their Knowledge assets.

Recommendations

Based on the forgoing conclusions, the study makes these recommendations:

The government should control liberalization of trade by using punitive tariffs on sugar imports while enforcing strict price control regime of sugar in the country to create level ground for KMPs' to thrive and influence corporate sustainability.

The Government should also extend COMESA safeguards and re-negotiate down its preferential market quota allocation to open gates for Knowledge creation and creativity as market would demand.

For Further Research.

Further research is suggested on the influence of Liberalization of trade policy on the relationship between KMPs' and sustainability of sugar companies in Kenya.

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