

Factors Influencing Supply Chain Management Performance Among Sugar Companies In Kakamega County, A Case Study of Mumias Sugar Company

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Abstract : Supply Chain Management (SCM) is a very important function in any company and it should aim at cost cutting and customer satisfaction. It gives the firm a competitive edge in the industry and this brings about an increased interest both from researchers and practitioners. SCM performance is influenced by a hybrid of factors. The main purpose of the study was to assess whether top management support has influence on SCM performance among sugar companies in Kakamega County, a case of Mumias Sugar Company (MSC). The study used descriptive research design where 72 questionnaires and 23 interviews schedule were used to collect data from the staff and top managers. Purposive sampling and simple random sample was used to identify the respondents for the study. The data collected was analyzed using statistical package for social science version 22. The descriptive analysis shows that 56 (88%) of the respondents agreed that Supply chain management function is recognized and supported by top management within the company while 57 (89%) of the respondents agreed that Supply chain management is recognized in the company structure and given the right team of staff by the top management. The regression analysis was performed at 5% level of significance where the null hypothesis that there is no influence of top management support on SCM performance and was rejected and the study concluded that top management support ($t = 3.319, p > 0.002$) influenced SCM performance.

Keywords : Influence, Management, Performance, Supply chain

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I. Introduction

Supply Chain Management (SCM) is a business process which although still evolving, has been in existence for many years. Sayed (2013) says that supply chain is a network of manufactures and services providers that work together to convert and move goods from the raw materials stage through to the end user. The manufacturers and service providers are linked together through physical flows, information flows, and monetary flow. Chopra and Mundil (2010) say that SCM is the management of supply chain activities and relationships in order to maximize customer value and achieve a sustainable competitive advantage. According to Patterson (2010) Supply Chain Management is the integrated control and planning of materials and product flow from supplier to customer. It involves movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption with value addition at every stage. On the other hand Simchi-Levy *et al.* (2010) posits that SCM puts up approaches that efficiently integrate suppliers, manufactures, warehouses, and stores, so that merchandise is produced and distributed accordingly. It is therefore right to argue that SCM can be looked at as the management function that deals with the management of goods, works and services from the original producer, through some transformation processes in a firm for value addition to the ultimate consumer and back flow of remains and empties together with the related information.

Top management world over have realized that SCM performance is critical to the performance of the firm. The objective of supply chain management is to be efficient and cost effective across the entire system (Simchi-Levy *et al.*, 2010). Supply chain performance is therefore very important in an endeavor to ensure customer service level and reduction in SCM costs. SCM Performance endeavors at, and can be seen when, meeting the given demand while satisfying customers at all times. Chopra and Mundil (2010) say SCM performance is realized when it leads to a firm meeting its customer's expectations on service like delivery precision through lead-time. To achieve both high customer service and low cost is a challenge for companies, but Pettersson (2010) says from his experience, the company has to be good in measuring saving time and cost to be able to know if it is working with the right strategies in its SCM functions. In today's competitive world, top management has begun to realize that it is not enough to improve efficiencies within an organization, but their whole supply chain has to be made competitive. This is supported by Chavosh *et al* (2011) that in today's

highly unsteady and competitive markets, rivalry among companies is transformed from competing on the basis of own capabilities to competing with a performing supply chain. According to Muthia and Rotich (2014) the understanding and practicing of SCM has become an essential prerequisite for staying competitive in the global race and for enhancing profitability. We can then say that many organizations have to realize a highly performing SCM is the key to building sustainable competitive edge for what they produce and/or services they offer to increasingly crowded and dynamic market place. Ochieng' (2014) further says that the goal is to have Supply Chain Management integration which leads to both information and material flows seamlessly across the supply chain as an effective competitive weapon. It should be noted that design of the supply chain management function can affect its performance through influencing information sharing within the supply chain. This is to say that SCM performance depends on factors like information sharing as enabled by ICT, top management support, the existing relationships and integration.

In Kenya today, sugar companies are faced with an array of problems. There is unhealthy competition in the sugar companies. The Parliamentary Committee on Agriculture, Livestock and Cooperatives' reported in March 2015 on 'The crisis facing the sugar companies in Kenya', that strained relationship between farmers and companies, lack of top management support and the use of outdated technologies, are driving up costs and are hurting the customers (Okwaroh, 2015). This means that competition is no longer among companies but among supply chains management factors. As reported from a workshop by Ohola and Simiyu (2011) some factories are overwhelmed by sugarcane supply, others are under-supplied. As a result of this SCM problem, domestic demand for sugar outstrips local production. This completion issues can be sorted out if there is a healthy buyer supplier relationship. Unscrupulous top management has run down nearly all of our sugar companies. Supporting this sentiment Opalo (2015) reveals that Kenya Anti-Corruption Commission report noted that there is blatant corruption and mismanagement of nearly all institutions connected to the sugar sector. In short, the sector is reeling under structural barriers to lack of integration in the operations and production as well as mismanagement. Currently, the publicly owned sugar factories combined owe the Government of Kenya, suppliers, banks, KSB and farmers over KShs 100 billion (Okwaroh, 2015). It means lack of Supply Chain Management Integration (SCMI) has led to the fund being misapplied and largely spent by millers and not farmers from whom it is mostly obtained.

Supply chain management function plays a key role in the performance of any company and sugar companies are not an exception. SCM should help sugar companies reduce and or control costs and meet customers' satisfaction. However SCM among sugar companies has experienced myriad problems, especially in western Kenya (Ochola & Simiyu 2011). Were (2010) posits that Mumias Sugar Company has a problem of shortage of the raw cane because farmers contracted to the company uprooted their crops as they went for other substitutes. Busolo (2015) says presently Mumias Sugar Company does not have sufficient logistical infrastructure to make its supplies section problems soluble. Okwaroh (2015) states that, there is a strained relationship between farmers and companies, material acquisition costs are high and are hurting the customers, all these due to use of outdated technologies and lack of top management support and commitment. SCM has been researched on but it is not clearly explained as to what are the factors that influence SCM performance especially in sugar companies. Waweru (2015) found out that top management does not give priority to SC, and recommended that they should try to understand the SCM activities and adopt ICT in the physical flow of material products. Based on the above studies among others, little information is given and it is not clearly established how and what exactly influences SCM performance. Therefore this research aims at explaining the top management support and its influence on SCM.

II. Literature Review

Top management of any organization has a role to play in the performance of SCM. It is revealed in an empirical survey using interviews to collect data by Sandberg and Abrahamsson (2010) that the importance of top management support for successful SCM implementation and performance has for a long time been recognized in the SCM literature. The researchers explored Swedish retail companies where they interviewed members of the top management teams. This may as well mean that leading CEO's world over, SCM is the topic that has raised most attention in their management activities. However, a survey research by Glatzel and Röhren (2014) posits, despite its obvious importance, the understanding, presence and commitment for SCM performance issues from top management is however far from always there. Top management support is critical in ensuring SCM performance. To reduce costs and serve the customers better, a descriptive study done by Houliham (2011) revealed that competitive pressures and changes in the economic climate have forced top management to evaluate afresh the companies' operational structures. These will involve organizational structure of international companies to involve international supply chain management. However, in such situations according to a survey by Glatzel *et al.* (2011) top management decisions have long been a SCM sore spot as its costs are set to rise drastically within the supply chain activities. Top management decisions may have devastating effect on the company's SCM performance. This is supported by the findings from a

descriptive survey that used questionnaires, Waweru (2015) revealed that one business unit might be asked to; shift its manufacturing lines to a more expensive near-shore location today to build capacity as a hedge against potential future spikes in SCM costs. In reality the future SCM costs can be dealt with in a better way other than the shifting.

SCM can greatly reduce the cost and meet customers' satisfaction and create real value for a firm. This can be so according to Klock *et al.* (2012) that states, to be really successful, SCM needs a seat at the management table. Top management dedicates resources and realigns the rewards and measures that are needed to make SCM an organization-wide priority. An imperial survey by Elsevier (2016) revealed that, top management support ensures that SCM implementation has high priority within the organization and that it will receive the required resources and attention. In this case top management responsibility is to provide sufficient financial support and adequate resources for building a successful SCM system. Though, in a descriptive survey by Waweru (2015) it was found that most top managers have not been able to formulate the right strategies required to achieve these objectives in supporting supply chain management. This may be due to poor enabling environment in these companies or incompetency of the top management. Top management at times fail to give the desired SCM support for not understanding why and for what reasons it should be. In the workshop papers, it was discussed by Bullington and Bullington (2011) that more likely issues come up when top management does not understand what commitment (support) a supplier relationship entails. Some element of this type of lack of understanding is common in many organizations because is purely lack of the relevant information. Some top managers have a distrust of suppliers and therefore see all supply chain relationships as suspicious (Chopra & Mundil, 2010). It is stated in a descriptive survey by Waweru (2015) that, to address these SCM performance hindrances, a call for strategic fit on companies' core competencies, strategies and capabilities is needed.

SCM performance needs the companies and players involved to work as a team. It is the role of top management to help and or formulate this SCM teams. The teams from the supply chain players will then work as one big team with no boundaries. Abreu and Alcantara (2016) without top management commitment, the successful relationships of the SCM team can also become unsuccessful in the upcoming period. Successful teams straddle between the organizational boundaries and its functions with customers. This is supported by Klock *et al.* (2012) saying that enlightened top management understands the needs and service requirements of the organization's customers. In a survey by Glatzel and Röhren (2014) supply chain, incentivized only on time to market and product launch excellence, allows it to get the latest trends into the hands of consumers before its competitors. This means conventional supply chain teams controls costs for products with steadier demand satisfaction. A supply chain that is given the due attention always brings about a good relation of companies and customers on the forecasting of demand, replenishing of supplies, and on the development of innovative products, services and business processes. Even though in a workshop paper presented by Bullington and Bullington (2011) it was discussed that, the SCM professional will often be confronted with less top management support than is desired, whether on the part of the buyer's organization, the supplier's, or both. But it is stated in a descriptive survey by Abreu and Alcântara (2015) that, in supporting SCM, it is top management's crucial role in ensuring the continued competitiveness of a firm through formulating strategies and monitor the execution. Therefore the attention and support from the top management in SCM performance is increasingly prominent and should be given the due attention.

Top management of any organization plays a key role in the performance of respective functional areas of that organization. This resonates well with a study by Waweru (2015) that top level managements involvement improves its performance and they should have a hand in development of SCM to propel its performance by adopting best practices. However; some of them have always proven not to understand the complex nature of the ever changing trends in SCM. The laws and regulations governing SCM are ever changing and the markets are more complex and dynamic. The changes may affect the SCM costs and how customers perceive the chain. This is why Sandberg and Abrahamsson (2010) posits that, despite its obvious importance, the understanding, presence and commitment for SCM issues from top management is however far from always there. The top management may at times not always commit to supporting the SCM function of an organization as needed to. It is true when Glatzel *et al* (2011) posits that, building bridges between senior managers is a critical step in constructing tomorrow's global supply chain management. However this does not take into account that significant organizational challenges that are involved that result in thorny trade-offs. The trade-offs affect the performance of the entire supply chain management as each functional head will strive to better his section in the organization. At the end the customers may be dissatisfied and the costs may end up going up.

III. Data Analysis

The data in this study was collected using questionnaires, the questionnaire was in a five point Likert scale presented as 1=Strongly Disagree, 2=Disagree, 3= Sometimes Disagree /Sometimes Agree, 4= Agree, 5=

Strongly Agree. A total of 41 questionnaire were issued and 91.4% of all questionnaires were returned as shown in (Table 1)

Table 1: Rate of questionnaire return

	Questionnaires issued	Questionnaires returned
Management	25	23
Staff	47	41
TOTAL	72	64 (91.4%)

Table 2 shows the results represented by likert;

Table 2: Top Management Support

SN	In a Scale of 1 To 5 (Where 1=Strongly Disagree, 2=Disagree, 3=sometimes disagree /sometimes agree, 4= Agree, 5= Strongly Agree)	1		2		3		4		5	
		N	%	N	%	N	%	N	%	N	%
1	Supply chain management function is recognized and supported by top management within this company	1	2	1	2	6	9	39	61	17	27
2	Supply chain management is recognized in the company structure and given the right team of staff by the top management	0	0	2	3	5	8	32	50	25	39
3	Top management has recognized and positioned SCM functions in cross functional team	1	2	1	2	3	5	40	63	19	30
4	The top management strategic plans have enabled an all-inclusive SCM team formation.	0	0	2	3	0	0	28	44	34	53
5	The supply chain management department has been allocated resources required to effectively carry out its activities	0	0	2	3	3	5	33	52	26	41
6	Top management decisions fully support resource allocation to SCM activities	0	0	2	3	6	9	33	52	23	36
7	The resources allocated to SCM activities considers competitive pressure and changes in the market	0	0	5	8	5	8	41	64	13	20

The analysis shows that 56 (88%) of the respondents agree that Supply chain management function is recognized and supported by top management within the company while 57 (89%) of the respondents agree that Supply chain management is recognized in the company structure and given the right team of staff by the top management. On the other hand 59 (93%) of the respondents agree that top management has recognized and positioned SCM functions in a cross functional team. The analysis also showed that 62 (97%) of the respondents agree that the top management strategic plans have enabled an all-inclusive SCM team formation while 59 (93%) of the respondents agree that the supply chain management department has been allocated resources required to effectively carry out its activities. It is also observed from the analysis that 56 (88%) of the respondents agree that top management decisions fully support resource allocation to SCM activities while 54 (84%) of the respondents agree that the resources allocated to SCM activities considers competitive pressure and changes in the market.

Table 3: Relationship between top management and supply chain management

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Ordinal by Ordinal	Spearman Correlation	.451	.102	3.975	.000 ^c
N of Valid Cases		64			

The study sought to find out whether there is any relationship between Top management and SCM. The correlation value of 0.451 indicates that there moderate positive relationship. The researcher also sought to find out whether the relationship is statistically significant at 5% level of significance. The researcher rejected the null hypothesis that there is no relationship between Top management and SCM at 5% level significance and conclude that the relationship is statistically significant.

Table 4: Regression analysis for Top management

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.140	.451		.310	.758
	Top management	.050	.015	.388	3.319	.002

a. Dependent Variable: Position of respondents in MSC

The regression analysis was performed at 5% level of significance. At 5% level of significance, we reject the null hypothesis that there is no influence of top management support on SCM performance and we conclude that top management support ($t = 3.319$, $p > 0.002$) will influence SCM performance.

IV. Conclusion

Based on the study results, Top management support and logistics integration is very important in SCM performance. Therefore top management should recognize and give full support to SCM functions within their organizations. Logistics is a key component of supplies chain management. Players to given SCM should integrate their logistics activities.

References

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