

# Investigation on Logistics Management Systems effectiveness and Improvements for Operational Synergy in the Kenyan Market, A Case of Logistics Systems Collaborative Integration.

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**Abstract-** Small and Medium Enterprises (SME) constitutes 90% of businesses in developing countries like Kenya, they exhibit poor supply chain structures and weak logistics Management Systems (LMS). In Kenya, SMEs experience supply chain collaboration barriers in form of technological, logistical, and financial challenges. The purpose of this study was to investigate the effectiveness of logistic management systems for operational synergy among the Kenyan SMEs.

The study employed a qualitative approach to investigate the manner and form in which SME within the Kenyan market apply LMS as a management tool in addressing business operations. Qualitative method is applied in simplifying, coding, analyzing and finally presenting the results in an accessible and understandable form by the Kenyan SME and other interested consumers. A sample size of fifteen respondents was selected among SME firms under investigation, distributed across five categories including: households retailing, goods distribution, and importation, warehousing, and service industry.

The research found out the SME in Kenya, are ill equipped in terms of elaborate structures and financing, leading to reduced technology uptake in form of mobile applications, internet-based transactions and other LMS technological essentials. To overcome the challenges, the research recommended that simplified mobile applications, internet and other IT based packages are specifically configured, availed and training offered among the target SME users through shared platforms. The individual business units stand to gain from improved LMS without heavy financial investment. The same add to the body of knowledge for those interested in tapping into the research findings and recommendations.

Enterprises (MSME) registered in Kenya, majority of which face multiple problems like poor financing, weak systems, and business sustainability. The MSME include all enterprises of one to one hundred employees, out of which those with ten to one hundred employees are SME. The well-being of businesses under this category is worth the research effort due to their potential to impact on the entire Kenyan economy. Based on findings by Moenga (2016), there is minimal application of the supply logistics practices particularly in Kenyan SMEs, a situation that leads to poor long-term relationship with the customers, suppliers and among themselves, resulting to multiple challenges which threaten long term growth and survival of the enterprises.

The study endeavors putting together experiences collected from fifteen sampled respondents among SMEs in Kenya, supplemented with available publications obtained from authentic internet sites and Kenyan government data base. Upon analysis, the research outcome provides an input to a well package, simplified and readily accessible solutions for the consumption of all interested parties. The research feeds into the process that avails the final product in form of check lists, transactional forms, simple demonstrations, references and contacts list for the Kenyan SME proprietors to enjoy a self-service office facility without having to invest in a physical office. The resultant package therefore empowers SME through promotion of information sharing, capital cost reduction, harmony, profitability, simplicity, and enhanced confidence to readily undertake small to large scale business ventures. Additionally, this opens avenues for collaborative management among the SME players in effect to compliment on their respective areas of weakness and strength.

## I. INTRODUCTION

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According to Kenya National Statistics Bureau (July 6, 2017), there are more than fifty thousand SME's operating in the country and over one million Micro, Small and Medium

## II. PROBLEM STATEMENT

According to Ong'olo and Odhiambo (2013), the Kenyan economy was characterized by a huge population of SMEs, where most of the businesses engaged in informal business structures with very limited application of formal Supply Chain Management. Further to these findings, Kenya National Statistics Bureau (July 6, 2017), indicated that they experienced severe

limitations in terms of weak business structures, low capital and lack of sustainability.

In summary, the various researchers have underlined the potential the SME in Kenya has in impacting the economy and by extension the wellbeing of Kenyan people. As a highlight to the task at hand, Wekesa et al (2014) defined the problem and referred to it as the “missing middle”. This is the gap between the formation of numerous enterprises and the subsequent collapse of the majority before the realization of their full potential in the market. The “missing middle” phenomenon is therefore the puzzle involving multiple factors ranging from SME formulation, support infrastructure, Logistics Management systems, market forces, to enterprises’ collaboration

### III. SIGNIFICANCE OF THE STUDY

SME category of businesses in Kenya forms a significant sector in the economy and therefore their sustained performance is of importance to the entire country’s wealth and by extension the well-being of the Kenyan people. According to Kenya National Bureau of Statistics (July 6, 2017), there exists over fifty thousand small and medium sized business in the country, who face challenges due to various factors including logistics limitations. Upon effective handling of the SME operational challenges, the overall economic growth and thus the Gross Domestic product (GDP) of Kenya is expected to improve significantly. As per the report, in terms of contribution to the Kenyan GDP, in the year 2015, businesses under this category contributed an estimate of Thirty Million US Dollars (USD) against the national output of Ninety-Seven Thousand Million USD which was over 33% share. Additionally, the SME businesses employed close to fifteen million Kenyans thus providing employment to over 35% of Kenyan population. The report farther indicated that: within the previous five years, over 73% of the registered business under the SME category closed down since they could not survive the various challenges including: low profitability, operational crisis and financing, leaving less than 30% of the enterprises operating. Based on the findings, research efforts towards investigating and resolving problems facing the SME are of significance in Kenyan economy as a whole and specifically, the lives of the individual business owners.

In the literature review, the researcher starts by introducing the Kenyan SME from the definition and experiences based on past studies done in the country. The introduction also includes SMEs’ impact and thus their significance to both the economy and the lives of Kenyans. Reports on other SME from other parts on the African continent and various global blocks like Europe, Asia and America were used as supplement literature and also for the purpose of comparison. Additionally, the SME are introduced from the theoretical understanding of fundamental phenomenon including supply chain management, logistics management, and business collaborations. This is for the purpose of creating a rich base for well-informed research work which accurately focuses on areas requiring further interrogation for practical recommendations that would benefit the Kenyan SME.

The LMS applicable in Kenyan SME have been explained in the context of supply chain theoretical framework. This forms

the framework on which the SME in Kenya can be analyzed, missing links identified, and the solution packaged in a form palatable to the users concerned. In line with this, aspects like business environment, entrepreneurship, LMS and business collaborations provide the input into the discussion in expanding the understanding on SME.

Based on literature reviewed on the SME in other countries within and outside Africa, it is apparent that every market has had its challenges. However, there is much to borrow in terms of overcoming strategies relevant to Kenya. Within the African continent, there is similarity in the type of challenges and manner in which the SME impact on the national economy. On the contrary, in regions characterized by progressive economic trends like USA, Europe and to some extent Asia, there is application of sound technological innovations and operational logistics systems worth adopting. Past attempts to get Kenya out of the phenomenon described as the “missing middle”, have been made by the Kenyan government as entrenched in the Vision 2030 (2017) but, going by Mutua (2018), findings reveal that there still exists a gap between the proposed policies and the actual implementation among individual SME players in terms of training and thus effective assimilation into business operations on the ground. It is upon this theoretical understanding of the national, regional and international historical background that the research efforts are aligned with the aim of providing technically feasible and sustainable solutions relevant to the Kenyan ailing SMEs.

### IV. SUMMARY OF RESULTS

The chapter presented the findings from the interview of fifteen SMEs operating in Nairobi County, Kenya. Presentation of the results was done in three parts in accordance to the themes and the research questions.

After analysis, various themes emerged based on the research questions, as explained below.

Six themes were selected to address the first research question; “*What logistical functions does your organization apply in accomplishing the main business transactions from product source to respective final customers?*” These themes included ordering, inventory control, warehousing, transportation, material handling, and logistical packaging. The majority (50%) of the respondents reported that computerized systems helped them order their goods efficiently. Regarding inventory control, 80% of the participants said that they managed to optimize their stocks through the management system and trained staff. Warehousing played a critical role in keeping inventories, as evidenced by 87% of the respondents, who indicated that they used stores of different sizes to house their stocks. The majority (73%) of the respondents used road transport to ferry their merchandize from the suppliers’ side to their stores. On material handling, quite a number (67%) of participants reported that they relied on their trained employees to achieve efficiency in handling stocks. Finally, the study established that 40% of the participants packed their products before delivering them to their customers.

Also, six themes, e.g., mission and vision, policies and procedures, unit of purpose, information sharing, meeting with suppliers and customers, and consultation answered the second research question; “*in the applicable logistical functions, in what*

*ways has there been internal or external integration of Logistics Management Systems (LMS)?*” The first three themes addressed internal integration and the other three answered external integration.

From the study, 60% of the respondents indicated that their mission was to offer high-quality customer service to their customers, while 40 % indicated that their vision was to become market leaders in Nairobi County. Regarding policies and procedures, most of the SMEs (73%) adhered to their internal regulations while running their businesses. To foster unit and teamwork, the majority (60%) of the respondents held regular departmental meetings to train and sensitize their employees on customer service and teamwork. In order to enhance information sharing, quite a number of the participants said that they posted their strategic information on their websites for their customers and suppliers.

Finally, four themes, such as limited resources, lack of ordering system, transport inefficiency, and inadequate storage emerged to address the third research question; in what ways have the LMS challenges if any, could be or have been addressed in the organization to benefit the business operations?

From the results, many respondents indicated that limited resources, such as inadequate capital and shortage of staff, hindered them from accomplishing their goals. From the findings, 20% of the respondents encountered inefficiencies in making orders because they had not automated their operations. Also, insufficient funds made some respondents to opt for the slowest mode of transport despite the urgency or the nature of stock they were dealing with. Finally, lack of storage was also found to be a hindrance to SMEs’ business operations.

## V. SUMMARY OF THE RESULTS

SMEs are defined as enterprises with less than one hundred employees, characterized by poor business support, weak information infrastructure, informal in nature, and, therefore, vulnerable to diverse threats affecting business survival (Wekesa, Bwisa, & Namusonga, 2014; KNBS, 2017). SMEs sector is crucial to the Kenyan economy. For instance, in 2016, SMEs contributed 33% to the GDP and provided employment opportunities to 35% of Kenya’s working population (CBS-GoK, 2012). In Kenya, SMEs are engaged in informal business structures with limited application of formal supply chain management (Ong’olo & Odhiambo, 2013). According the Kenya National Bureau of Statistics (2017), SMEs experienced various challenges, such as insufficient capital and lack of sustainability. In South Africa, SMEs face not only the financial constraints, but also other challenges, such as lack of education, crime, and reduced economic growth.

The purpose of the study was to find out how SMEs apply logistical management functions in accomplishing their business transactions. Also, the study sought to know how SMEs practiced various types of integrations, and the challenges faced by SMEs in implementing LMS functions. In this study, a qualitative approach was used to investigate how the Kenyan SMEs applied LMS in dealing with their business operations. According to Houé and Murphy (2017), this method is appropriate when a research involves establishing the relationship between variables in logistics networks or supply chain management. The study

focused on different business operations, such as product distribution, warehousing, importation, purchasing, and transportation.

The research used open-ended interview questions to interview respondents through face-to-face interactions. Random sampling was used to select a sample of 15 respondents for interrogation among the firms from different categories, such as household retailers, good distributors, importers, warehousing, and service industry. These categories were purposefully selected for the qualitative study. Data was analyzed thematically in line with Alhojailan (2012), who argued that this method is suitable when classifying and presenting themes that relate to the data.

The research sought to find out the logistical functions used by SMEs in accomplishing their business transactions. From the results, 50% reported that computerized systems helped them to be effective in ordering stocks from suppliers, 12% ordered through suppliers websites, 19% made their orders via emails, and 19% through telephone. Regarding inventory control, 80% of the participants said that the management system aided them to keep their merchandize at optimal levels, while 20% reported that they controlled their stocks manually. The study further established that internal integration had been made possible through various aspects, such as mission and vision, policies and procedures, and unit of purpose. For instance, 60% of the respondents indicated that their mission was to offer high-quality customer service to their customers, while 40% reported that their vision was to become market leaders in Nairobi County. Moreover, external integration was achieved via information sharing and regular meetings with suppliers and customers.

The study revealed that limited resources, such as inadequate capital and shortage of staff, hindered SMEs from accomplishing their goals. For instance, 80% had websites and expected improvement in their ordering process while 20% had no websites and found it challenging to make orders because they had not automated their operations. Also, lack of sufficient funds made some respondents to opt for the slowest mode of transport despite the urgency or the nature of stock they were dealing with.

## VI. DISCUSSION OF RESULTS

From the findings, it was noted that the majority (50%) of the respondents found it efficient to order their goods from suppliers through computerized systems.

Regarding external integration, SMEs collaborated with their customers and suppliers in different ways, such as sharing information and holding regular meeting. For example, 60% of the participants reported that they posted their strategic information on their websites in order to share it with their customers and suppliers. Also, 33% of the participants reported that they held frequent meetings with their suppliers and customers to deliberate on the issue of marketing and inventory management. This study agrees with Peterson et al. (2017), who opined that effective collaboration with suppliers was critical to avoid the threat of resource dependence.

On LMS challenges, many respondents indicated that limited resources, such as inadequate capital and shortage of staff, hindered them from accomplishing their goals. Regarding ordering, 20% of the respondents found it inefficient to make orders because they had not automated their business operations.

These findings are in line with Louise (2016), who revealed that South African SMEs are constrained not only by financial factors, but also specifically by non-financial factors such as lack of education, crime and slow economic growth.

## VII. CONCLUSIONS AND PRACTICAL RECOMMENDATIONS

The study sought to investigate logistic management system effectiveness and improvement for operational synergy in the Kenyan Market. From the results, 50% reported that computerized systems made the ordering process convenient for them. The findings of this research indicate that a large proportion (46.7%) used non-computerized systems. A big gap therefore exists among Kenyan SME's that could be reduced with further technology uptake in the form of mobile applications, internet-based transactions and other IT related methods that are easily available and accessible in urban centers in Kenya such as Nairobi. Quite a number (80%) of the respondents said that they efficiently controlled their inventories through the Logistics Management Systems (LMS) and help of trained staff. Staff training is thus an essential ingredient in improving LMS efficiency. As a result, few companies that have not yet incorporated training on their LMS ought to be encouraged to do so in order to enjoy the benefits thereof.

The study established that internal integration was practiced in different ways – through mission and vision, policies and procedures, and teamwork. For example, 60% of the respondents indicated that their mission was to offer high-quality customer service to their customers, and 40 % indicated that their vision was to become market leaders in Nairobi County. Also, 73% of the respondents had policies and procedures that governed their business operations. Externally, SMEs collaborated through information sharing and holding regular meetings with suppliers and customers.

Furthermore, the study sought to investigate on LMS related challenges amongst the Kenyan SMEs and established that inadequate capital hindered them from accomplishing their goals. In this case sufficient efforts need to be put by Micro finance and banking institutions that develop loan packages targeting specific areas within the LMS such as fleet acquisition and technology upgrades, to enable a bridge of these critical gaps. Also, 20% of the participants said that they encountered inefficiencies in making orders because their businesses were not automated. A continual technology uptake by SME in the LMS chain is further required to realize efficiencies whilst handling orders to avoid loss of customers or increase of future customers for SME thus resulting to better SME turnovers.

With the understanding that financial resources remain to be a challenge among SMEs under investigation, it is therefore

recommendable that simplified mobile applications, internet and other IT based packages are specifically configured, availed and training offered among the target SME users. This role is better undertaken by county government business promotion organs in effort to elevate all SMEs to a level they can overcome logistical limitations and achieve the synergy for better outcome.

## VIII. RECOMMENDATION FOR FURTHER RESEARCH

Further study should be carried out to establish the relationship between logistic management functions and financial performance of SMEs in Nairobi County, Kenya.

Based on the gap discovered in this research, an investigation on technology uptake by SMEs within Nairobi County on their LMS should be investigated to establish the degree and impact of improvement in SMEs business.

## REFERENCES

- [1] Alhojailan, M. I. (2012). Thematic analysis: A critical review of its process and evaluation. *West East Journal of Social Sciences*, 1(1), 39-47.
- [2] CBS-GoK (2012), Economic survey, Ministry for Planning and National Development, Nairobi.
- [3] Houé, T., & Murphy, E. (2017). A Study of Logistics Networks: The Value of a Qualitative Approach. *European Management Review*, 14(1), 3–18. <https://doi.org/10.1111/emre.12086>
- [4] Kenya National Statistics Bureau (July 6, 2017). 2016 Micro, Small and Medium Enterprises (MSME) Survey Basic Report. Retrieved from <https://www.knbs.or.ke/2016-micro-small-and-medium-enterprises-msme-survey-basic-report-2/>
- [5] Louise van Scheers (2016). Is there a link between economic growth and SMEs success in South Africa? *Investment Management and Financial Innovations*, 13(2-2), 249-353. doi:10.21511/imfi.13(2-2).2016.09
- [6] Mutua, J. (2018). Analysis of training as a determinant that influences business growth of SMEs in Nairobi County, Kenya: Case of SMEs in Gikomba Market. *International Journal of Economics, Business and Management Research*, 2(4), 364-375.
- [7] Ong'olo.D and Odhiambo.S (2013). SMEs Development in the Devolved Governance System Policy Options for Institutional and Regulatory Reforms in Kenya. *CUTS Nairobi Vol.1*
- [8] Petersen, M., Brockhaus, S., Fawcett, S. E., & Knemeyer, A. M. (2017). The ties that bind: how a collaboration deficit impedes the development of sustainable products. *Supply Chain Forum: International Journal*, 18(3), 166–176. <https://doi.org/10.1080/16258312.2017.1369841>
- [9] Vision, K. (2017). 2030. 2017. Vision 2030. Political Pillar: Public Sector Reforms.
- [10] Wekesa N. G., Bwisa H. & Namusonge G. (2014). Effects of access to Business Information on Growth of small and medium Enterprises in Kenya. *International Journal of Business and Social science*, 5(10), 121-128.

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