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   REVIEW OF LITERATURE

   NEED/IMPORTANCE OF THE STUDY

   STATEMENT OF THE PROBLEM

   OBJECTIVES

   HYPOTHESES

   RESEARCH METHODOLOGY

   RESULTS & DISCUSSION

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- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

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TOWARDS ENHANCING EFFICIENCY IN THE TRANSPORT INDUSTRY IN KENYA: A STUDY OF THE ROAD AND RAIL TRANSPORT

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ABSTRACT

This paper presents the concepts of beneficence, speed and efficiency in transport through an examination of transport literature and its application to the transport challenges which typically confront the transport industry in Kenya. The main research drivers focused on speed, road and rail safety, the impact of East Africa Community integration on the transport industry and the Government of Kenya's involvement in enhancing efficiency in the road and rail transport. Railway transport is the second most popular mode of transport in Kenya, after road transport for both freight and passenger traffic. The growth of Kenya's economy hinges to a large extent on the road transport sector operating more efficiently and effectively in moving freight and goods. This was a desk research study which relied heavily on secondary data. The conclusions of this study are that road and rail performance do not meet the expectations of its users and neither have they met those of the government. They are inefficient, unreliable, and unprofitable in most years and operate in a dilapidated, obsolete state. Therefore it is recommended that; a) efficiency of the road transport to be increased especially along the Northern Corridor and the Tanzania-Kenya-Sudan road corridor b) improve the institutional arrangements and capacity in the transport sector c) improve security in the region

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KEYWORDS
Efficiency, infrastructure, logistics, rail transport, road transport.

1.0 INTRODUCTION

In the recent years, rapid deterioration of the road network due to poor maintenance has become a serious impediment to economic development. This has hampered the marketing of perishable agricultural products such as milk and vegetables in some parts of the country. The decline in rail capacity has begun to constrain the exportation of low-value bulk commodities such as soda ash, which are very sensitive to changes in transport costs. Of greater concern to policymakers, planners and other stakeholders, however, are the constraints the existing transport system is imposing on the future growth and diversification of production and exports. High transport costs have seriously hampered the competitiveness of commodities from countries transiting their exports and imports through Kenya, including the local business community.

Kenya has a road network connecting major cities and towns in the country. Road transportation handles nearly 70 per cent of freight traffic. The Government of Kenya has improved infrastructure for motorized and non-motorized vehicles and encouraged people in rural areas to form cooperative societies to sell their produce and buy inputs at central markets. The Government has also enforced axle load regulations and restructured other transport systems. Plans are underway to explore privatization and modernization of weighbridges and introduction of weigh-in-motion facilities. The Government has also encouraged the use of rail transport to reduce traffic and boost the economy, as well as extend rail services across borders. It is keen to ensure that railway operations are improved through adequate financing for development and maintenance so as to participate effectively in the competitive global trade.

Building the capacity to participate in global trade is becoming increasingly critical for economic growth in developing countries. As the pace of global integration continues, developing countries will compete increasingly in terms of their ability to link with global and regional markets competitively and efficiently. An inefficient trade and transport facilitation system can create obstacles and incurs real costs in terms of the product value –international agencies estimate that outdated trade administration procedures and the failure to adopt IT-supported trade facilitation account for seven per cent of the value of the goods traded (Schware and Kimberley, 1995). For countries in East Africa region, improving the efficiency of trade logistics is a critical priority. This is not a task with a clear start and end; it is a process that has to be set in motion with small initiatives. The region is losing global market share in key export sectors.

2.0 LITERATURE REVIEW

2.1 OVERVIEW OF THE TRANSPORT INDUSTRY IN KENYA

Road transport accounts for 80% of the total movement of passengers and freight in Kenya. Generally, roads are the only means of access to rural communities. The public road network in Kenya is about 160,886 km in length, comprising 16,544 km of National Roads managed by the Kenya National Highways Authority; 12,549 km of urban roads under the Kenya Urban Roads Authority; and an estimated 131,794 km of rural roads under Kenya Rural Roads Authority.

The railway network administered by the Kenya Railways Corporation, with a 1,083 km main line from Mombasa to Kisumu and Malaba. Freight services constitute about 95% of railway operations and income. Currently, the railway system carries about 2.4 million tons of cargo per annum which is about half capacity. The Kenya and Uganda Railways mainline systems are under jointly concession to a private operator, Rift Valley Railways Consortium (RVR) in an attempt to increase efficiency.

Air transport is managed by the Kenya Airports Authority (KAA), established in 1991. KAA operates nine major airports nationwide, including 3 international airports, and 250 airstrips around the country. Ongoing infrastructure expansion works to the major airports are aimed at increasing capacity.

Kenya has one sea port at Mombasa, which is operated by Kenya Ports Authority (KPA). The port has 16 deep water berths while other major and deeper ones almost completed. Lamu port under the greater LAPPSET project is also under construction with the first three berths expected to be completed by 2015. Cargo traffic through Mombasa port is about 24 million tons in year 2012 including 775,000 TEUs of container traffic. KPA also operates two inland container depots in Nairobi and Kisumu. KPA's strategy is to introduce private sector management and financing so as to improve the port's performance, starting with the new container terminal under construction, conventional berths, oil terminals and marine craft.

The oil pipeline, managed by the Kenya Pipeline Company, from the port of Mombasa to Nairobi (450 km) with extensions to Eldoret (325km) and Kisumu (121 km). The pipeline carries about 4 million m^3 of petroleum products per year.

2.2 SITUATIONAL ANALYSIS OF RAIL AND ROAD TRANSPORT IN KENYA

The wider Eastern African region has in recent years been subject to a multitude of proposed new rail projects, with the arguably most advanced being the link from Dar es Salaam, via Isaka to Kigali / Rwanda. LAPPSET too has made advances with a proposed new deep sea harbor in Lamu linking the landlocked countries of South Sudan and Ethiopia by a new standard gauge railway and a highway, having a branch off in Northern Kenya to Juba and Addis Ababa, which would give both countries a reliable link for imports and exports away from hostile neighbors. Not much progress though has been made in past plans to link Juba with Uganda before joining the RVR network linking to Mombasa, and other plans to create a new railway line between Tanga and Musoma at Lake Victoria too have in spite of political declarations of intent been on the slow burner, as financiers are looking at them all to root out duplicity and promote only the most viable links in terms of passenger and cargo traffic expected to shift from road to rail.

As to the road sector, bottlenecks continue to exist along the major traffic arteries from the coastal ports of Dar es Salaam and Mombasa to the hinterland countries, especially considering the constantly congested Kenyan capital Nairobi and the same in Kampala, with border crossing facilities and infrastructure too lagging decades behind. Therefore the problems to be tackled in this industry in the East African countries include rehabilitation, expansion as well as new bypasses around the worst congested stretches of highway to ensure that a future road network supports the growth ambitions of the East African Community and provides links to South Sudan, Eastern Congo and Ethiopia. In Kenya, roads are mainly concentrated in areas of high population and economic activity, especially the highlands, where most of the country's food and export crops are grown. However, the road condition has deteriorated considerably over the years due to inadequate maintenance and overloading of vehicles. A visual inspection of the paved road network revealed that only 12 percent of the network is in good condition, 42 percent in fair condition and 46 percent in poor or critical condition.

Major investment has been necessary along the Northern Corridor to raise pavement standards and to meet present traffic-level demands. Several attempts have been made to control vehicle overloading through the introduction of weighbridges without much success. The extension of the pipeline to both Kisumu and Eldoret significantly reduced traffic loading on the main road. However, this did not have a lot of impact on the Nairobi-Mombasa road because of the demand to transport heavy petroleum products by road. Kenya Railways was hence required to upgrade its oil lifting capacity from Mombasa by converting some ordinary wagons into oil tanker wagons.

2.3 THE EASTERN AND CENTRAL AFRICA ROAD AND RAIL TRANSPORT

Economic growth has been strong in the region, owing to increased mining activity, especially in the coal sector, as well as higher agricultural production and tourism growth. The demand for raw materials, from India and China in particular, is also providing East and Central Africa with new markets and increased exports. As a region, East Africa comprises about 26% of Africa's population and 16.5% of Africa's combined GDP in 2012 current prices. Regional GDP growth was aided by rising oil output in Sudan, mineral exports in Ethiopia and Tanzania, robust trade output from Kenya and economic reforms in Rwanda. Growth is expected to remain strong with foreign investments in oil and mineral exploration in Sudan, Uganda and Ethiopia, along with a pipeline of large infrastructure projects in the Central, Northern, and North-South Corridors.

The inadequate infrastructure network however is hampering economic growth. Urgent priority has been placed on improving the transportation network with investments from both the private investors and multilateral agencies. Efficient transportation corridors are keys to economic development, and thus rehabilitation projects and new infrastructure investments are needed to keep the region prospering. The key factors in ensuring a functioning road network include road planning, design, operation and optimization of rail assets, and regional connectivity.

Large infrastructure investments are expected to be in the form of Public Private Partnerships. Private Sector Investors need to understand the requirements of partnership agreements in order to participate effectively in them. However, the inadequate infrastructure network is hampering economic growth. Urgent priority has been placed on improving the transportation network with investments from both private investors and multilateral agencies. Meanwhile, countries such as Germany and bodies such as the African Development Bank (ADB) are providing new funding to rehabilitate and improve current transportation networks in the region. Efficient transportation corridors are keys to economic development; therefore, rehabilitation projects and new infrastructure investments are needed to continue driving economic growth in the region.

The development of transport corridors is a top priority in East Africa. The major transport corridors are the Central Corridor (Tanzania to the Democratic Republic of Congo (DRC), the Northern Corridor (Kenya to DRC/Sudan), the North– South Corridor (Egypt to South Africa), the Tazara Corridor (Tanzania to Zambia) and the corridors in the Horn of Africa (Addis Ababa–Djibouti, Kenya–Ethiopia, Kenya–Sudan and Uganda–Sudan). Large infrastructure investments are expected to be in the form of public–private partnerships. Private-sector investors need to understand the requirements of partnership agreements to participate effectively in them.

3.0 IMPORTANCE OF STUDY

The study will help in establishing the factors affecting efficiency in the road and rail transport in Kenya and hence provide recommendations on how to improve efficiency in this key sector. This sector forms the backbone of the economy and plays a vital role in linking the overall trading chain and consequently, determines to a large extent Kenya's trade and market competitiveness.

4.0 STATEMENT OF THE PROBLEM

The transport industry in Kenya faces a myriad of challenges. The road and rail industry in Kenya is faced with many challenges which include; the population and economies in the region are growing in leaps and bounds and the current railways system cannot cope with the current and future demands. There is a gap between haulage capacity and traffic availability both current and projected. Transport and logistics in the region is expensive in comparison to the world benchmarks. Insecurity along the transport network is high. There are stranded resources in the region that cannot be moved efficiently e.g. minerals and agricultural produce. The congestion in our major cities is a result of uneconomical, unreliable, unsafe inter-urban passenger transport. The constant shift of traffic from rail to roads has resulted in high cost of road maintenance and rehabilitation. There is also an environmental degradation concern due to the increased use of fuel. These challenges have resulted to inefficiencies in the delivery of services both in the country and in the entire Eastern African region.

5.0 OBJECTIVES

Transportation decision makers are tasked with doing more transport logistics improvements more often, which requires enough tools to assess and predict the outcomes of their choices and enhance efficiency. Efficient trade logistics are important for attracting foreign direct investment, which in turn can increase a country's export capacity. In particular, foreign companies increasingly rank developing countries in terms of the following factors: (i) access to key markets; (ii) adequate skills at competitive costs; (iii) high quality infrastructure and logistics; (iv) competitive domestic enterprises – in terms of cost, quality and timely delivery; (v) presence of industrial clusters; (vi) efficient bureaucracy; and (vii) locations that fit into international production systems (UNCTAD, 2002). Therefore the research sought to find out the factors contributing to inefficiencies in the road and rail transport in Kenya.

6.0 HYPOTHESES

The economic growth of Kenya is highly dependent on an efficient transportation infrastructure. Road transport is the most widely used mode of transport in the country for transportation of goods within the East African region. This is followed by the railway transport. It was therefore crucial for this study to investigate the factors contributing to inefficient transport in Kenya.

7.0 METHODOLOGY

The study utilized a desktop research technique in seeking facts, general information on the topic, historical background and study results that have been published or exist in public documents. The information was obtained from libraries, newspaper archives and websites, journals and magazines.

8.0 RESULTS AND DISCUSSION

8.1 THE ROAD AND RAIL TRANSPORT PERFORMANCE

8.1.1 RAIL TRANSPORT

The railway network operates a fleet of about 156 locomotives, with a carrying capacity of 6,407 wagons and 588 coach units. The rolling stock operates along the 2,700-kilometre route that connects Mombasa to Malaba, Nakuru to Kisumu, Kisumu to Butere, Voi to Taveta, Nairobi to Nanyuki, Eldoret to Kitale, Rongai to Solai and Gilgil to Nyahururu. There are over 150 stations. In addition, there is the Konza-Magadi line, which is maintained by the Magadi Soda Company. The Kenya–Uganda railway line was placed on management concession to a South African company, Rift Valley Railways on November 1, 2006 for a period of 25 years. The Kenya railway runs the other lines. However, old and poorly maintained tracks, locomotives, coaches and wagons continue negatively affecting the performance of the rail.

8.1.2 ROAD

The country's entire road network stands at approximately 151,000 Km. Out of this; over 63,000 Kms are under classified road system while 87,600 kms fall under unclassified road system category. Out of the classified network system, 7,943 Kilometers meet the bitumen standards, 26,181 Kilometers meet the gravel standard and the rest are earth.

8.2 INEFFICIENCY IN THE TRANSPORT INDUSTRY IN KENYA

8.2.1 KENYA RAILWAYS CORPORATION PROBLEMS

Inadequate maintenance and other operational inefficiencies are evident in the limited number of locomotives that are available for service. Such inefficiencies cause railways to drive away traffic, which in turn compounds the sector's financial difficulties. Other problems include continuing decline in KRC performance (notwithstanding the surplus profit of FY 2011-2012), the bloated workforce, escalating public debt, lack of government subsidies, and fast deterioration of KRC's asset base. If these trends are not checked immediately, the weak financial position may result in total collapse of KRC.

The weak financial base of the corporation is enhanced by the fact that the economy is experiencing high interest rates despite stringent structural reforms, poor availability and reliability of wagons and locomotives and stiff competition from road haulers. Other issues include poor a telecommunication and signaling system, an obsolete management information system and prolonged delays at border points due to bureaucratic procedures by customs and immigration departments.

It is noted that public ownership, financing and operation have failed to demonstrate any advantage in achieving national goals of poverty eradication and environmental sustainability. Fiscal drain, inadequate cost recovery methods, operational inefficiency, inadequate maintenance, and unresponsiveness to user demand problems have hampered sustainability of an efficient, reliable and profitable railway system in Kenya.

Deliberate cost recovery efforts and modalities for private sector participation in the provision of railway services are possible alternatives. This is because reliance on public ownership and provision of services is characterized by inefficiencies in resource allocation and enterprise management.

9.0 FINDINGS

9.1 MAJOR CHALLENGES EXPERIENCED WITH ROAD AND RAIL TRANSPORTATION

FIGURE 1 SOURCE: KAM TRADE FACILITATION STUDY; FIELD SURVEY, 2012

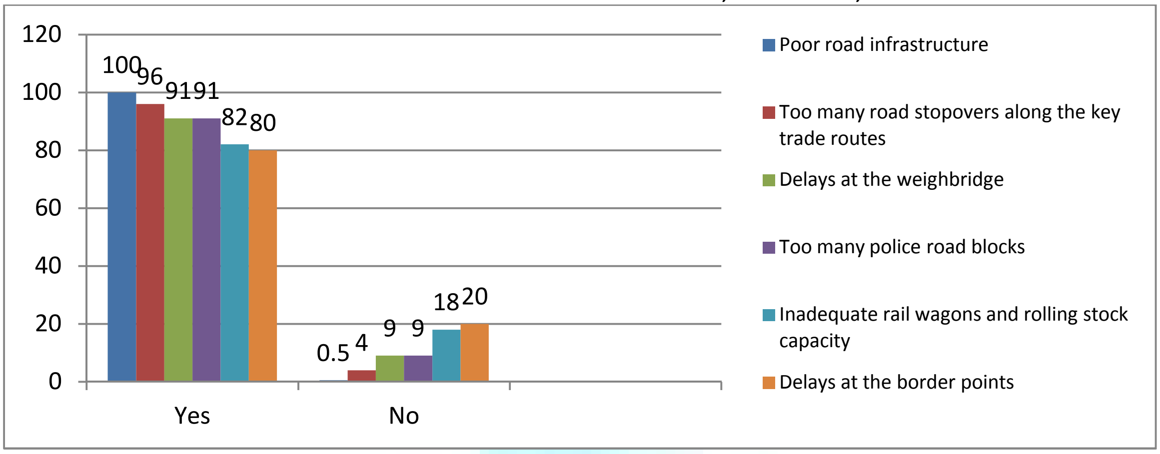

Figure 1 above shows that poor road infrastructure scores100 per cent from the desk literature review. This is followed by numerous road stopovers along the key trade routes which had 96 per cent. Police road blocks and delays at weighbridges are major challenges as indicated by 91 per cent. Inadequate wagons and rolling stock capacity for the Rift Valley Railways had a response of 82 per cent followed by delays at the border points with 80 per cent.

Other challenges with overland transportation system:

RAILWAYS

1. Level of automation of the Rift Valley Railways (RVR) system is low. This causes delays.
2. Processing of Rail age Consignment Note is highly inefficient
3. Rail age Consignment Note (RCN) checked three times by Roll On-Roll Off (RORO) office, RVR CDO Office and Rail-Mounted Gantry (RMG) office
4. Poor communication with the customers
5. RVR does not give prior information to clients whenever wagons or trains are to be delayed

ROAD TRANSPORT

1. Inadequate road maintenance hence poor infrastructure and delays on the roads
2. Transit trucks have been designated particular routes to follow no matter how bad these roads are. This causes further delays and damage to vehicles hence increasing the freight charges
3. Trucks must pass through the six weighbridges along the transit corridor
4. Equipment used at the weighing bridges are old and few; there are currently only two located at Mlolongo and Mariakani, hence the delays
5. Poor working conditions at the weighbridges. The working place is very dusty, rough and bumpy. Workers suffer from respiratory related diseases as a result of this dust. There is lack of clean drinking water and washrooms.
6. Customs escort for transit trucks delays even for two days. This causes inconvenience to the cargo and truck owners as well as the drivers
7. Corruption
8. Lengthy approval process for transfer of cargo from one transit truck to another in case of breakdown along the corridor
9. High freight charges - after all those challenges the owner of goods must pay for it, hence reducing the competitive advantage of the business Pipeline

There is inadequate capacity to transport fuel. Trucks from the region are travelling all the way to Mombasa to collect fuel which adds on to cost of petroleum products. Heavy trucks damage the road rapidly – a good case is that of the Sultan Hamud to Mtito Andei road - this road which is hardly four years is already damaged in some sections and requires repairs. More trucks on the highway increase the occurrence of accidents

9.2 IMPLICATION OF OVERLAND TRANSPORT CHALLENGES TO THE BUSINESS SECTOR IN KENYA

9.2.1 EFFECTS OF POOR ROADS AND RAIL TRANSPORTATION SYSTEMS

FIGURE 2: EFFECTS OF POOR ROADS AND RAIL TRANSPORTATION SYSTEMS

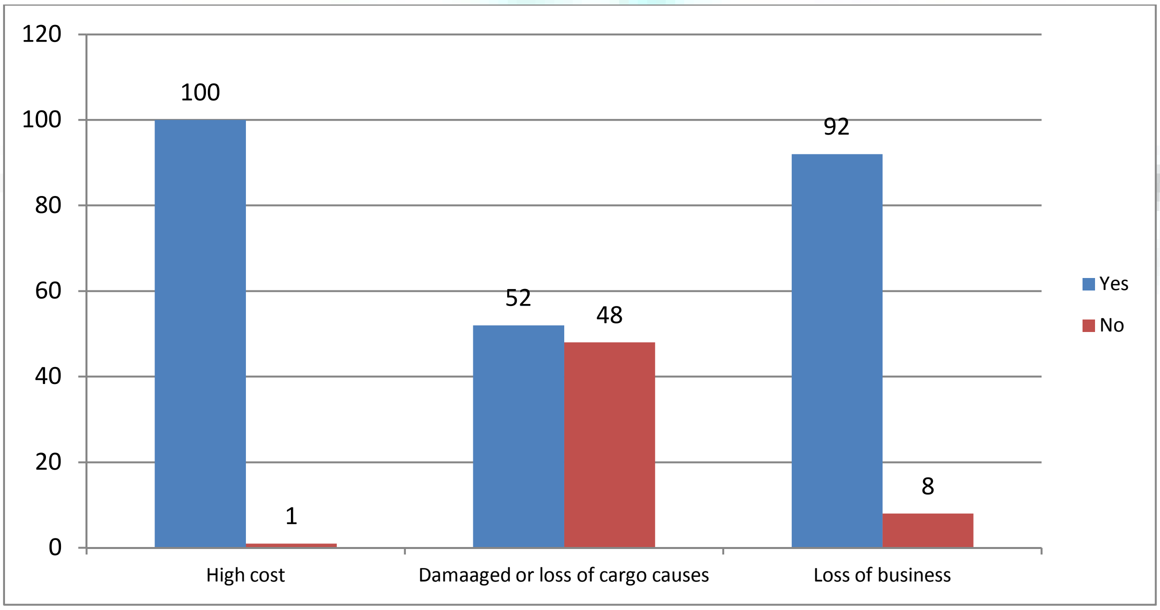

Figure 2 shows the effects of poor transportation systems to businesses in Kenya. A 100 per cent of the respondents indicated that poor transportation infrastructure adds high costs to the goods and services they offer to the market. The cost of transportation in Kenya is 30 per cent of the value of goods as indicated by respondents in this study. Another earlier study on "Cost of Transportation in East Africa", carried out by USAID in 2007 gave a similar picture. The costs result in loss of business opportunities as pointed out by 92 per cent of the respondents.

10.0 RECOMMENDATIONS
Most of the railway yards are congested with old wagon stocks and locomotives and should be decongested to create space for increased traffic as improvements are made in railway operations. It is necessary to establish specific areas as railway museums where the old stocks of locomotives and wagons can be stored and used as tourist attraction centers. The active stocks should be adequately covered through an insurance policy against accidents and fire. The same cover should be extended to customer cargo. The railway track suffers from a number of limitations, including poor maintenance due to inadequate maintenance budgets; a narrow gauge (1000 mm), which limits the commercial speed to 40 kph; and low equipment availability, approximately 50 percent. This is primarily due to a lack of spare parts, high manning levels due to over employment and an intensive manning methodology as stipulated by the corporation's engineering manuals.

To deal with these problems, it is proposed that lines with insignificant traffic should be closed and rails uprooted, and stations as well as railway reserves sold to generate income for the railways. The affected branch lines include Gilgil-Nyahururu, Rongai-Solai and Leseru-Kitale. The proposition that a recurrent budget allocation priority should be given to railway track and maintenance schedules should be computerized and monitored closely. Finally, sleeper defects should be rectified and areas prone to accidents rehabilitated and/or reengineered.

In the implementation of railway reform, it is important to reorganize a "hierarchy among a range of various interventions", reflecting the fact that successful change at one level is generally predicated on certain prior conditions being met at a higher, more strategic level. A World Bank survey on human resources and institutional development in Sub-Saharan Africa railways identified and outlined this hierarchy of institutional issues and the order in which they should be approached. These included defining the railway's role; developing commitment to that role; implementing appropriate transport policy framework for achieving that role; implementing strategic reform and restructuring to ensure efficiency under the circumstances; strengthening top management through training and facilitation; improving resource availability; and finally implementing reorganization and management control. The road network

11.0 CONCLUSIONS
Like many economic activities that are intensive in infrastructures, the transport sector is an important component of the economy impacting on development and the welfare of populations. When transport systems are efficient, they provide economic and social opportunities and benefits that result in positive multipliers effects such as better accessibility to markets, employment and additional investments. When transport systems are deficient in terms of capacity or reliability, they can have an economic cost such as reduced or missed opportunities**.** Efficient transportation reduces costs, while inefficient transportation increases costs. The impacts of transportation are not always intended, and can have unforeseen or unintended consequences such as congestion. Transport also carries an important social and environmental load, which cannot be neglected.

High costs, unreliability, and poor quality of railway transport services are stifling efforts to promote Kenya's economic development. The large financial losses experienced by KRC in recent years have put a considerable strain on public finances. Restrictive regulations contribute to high costs and are a barrier to new innovations. Kenya's railway transport system, like the rest in Sub-Saharan Africa is a precarious and expensive venture. This is mainly because of the difficult terrain, low demand, and the scarcity of human and financial resources. Besides, the policies adopted to deal with these challenges have usually been ineffective.

The conclusions of this study are that railway performance does not meet the expectations of its users and neither has it met those of its owners. It is inefficient, unreliable, and unprofitable in most years and operates a dilapidated, obsolete rolling stock. It is not possible for KRC to raise investment funds from its current operations, due to an existing backlog of financial requirements and hence needs a partner with the required financial resources and the technical know-how. The growing traffic through the port of Mombasa is constraining railway capability with the result that it has lost its complementary role to other transport modes. At the moment, the railway is engaged in too many activities that are not core to its prime objectives. This is adversely affecting efficiency. These conclusions form the basis of the recommendations of this research paper.

12.0 LIMITATIONS
There was limitation in getting the relevant information required from the various targeted agencies. This non-disclosure can be attributed to the suspicion on the part of the respondents.

13.0 SCOPE FOR FURTHER RESEARCH
The study recommends further research to be done on inefficiencies in the air and sea transport in the East African Region. This will provide a more detailed comparative analysis of the challenges affecting the entire transport industry in the region.

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