

Effects of Resource Risk Management Strategies on Road Construction Project Delivery in Kenya

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Abstract

The most predominant Department of Infrastructure, has embarked on major road investments. In the financial year 2021-2022, Kenya National Treasury allocated KSh.200 billion for the construction of over 6,000 kilometers of new roads to expand the country's accessibility. The reason for construction of roads is to reduce traffic jam, which in Nairobi is estimated to cause \$1 billion a year in lost productivity. Road construction projects in Kenya are complex and challenging sometimes resulting to delay in completion time, litigation, and cost overruns. This is partly contributed to the resource risk management performance in the road construction sector which has traditionally been instinctive or based on unwritten rules where most of the time risks have either been ignored or handled arbitrarily. However, some road projects (167.9 kilometers valued at Ksh. 690.4 billion) have had major challenges due to execution by ill-equipped contractors resulting in compromised quality of work executed, projects running behind schedule as well as having high-cost overruns. The reason for this being attributed to the lack of enforcement of effective resource risk management strategies. This study sought to determine the influence of resource risk management strategies on delivery of road construction projects in Kenya, with the main focus on Nairobi Expressway, Kenol-marua and Isebani-Ahero road projects. The aspect of the resource risk management strategies that were examined included; risk transfer, risk avoidance and risk mitigation. This study used an explanatory research design, that tries to understand a problem that has not been conclusively researched. This study collected both primary and secondary data. The primary data was collected from 45 respondents in the management level using questionnaires. Quantitative data was analyzed by calculating the response rate with descriptive statistics such as means, median, standard deviation, and percentages using the statistical package for social sciences (SPSS). The analyzed data was presented by the use of bar charts, graphs, and frequency tables. The qualitative data was analyzed using content analysis where common themes were placed together and then subjected to descriptive statistics. The study revealed that road construction companies investigated have taken initiative to implement resource risk management strategies that contributed to road construction project deliveries. The road companies ensured resources such as construction materials and equipment are available. They also managed human resource effectively to reduce absenteeism and ensuring they employ competent employees that are motivated. The result revealed that resource planning, resource scheduling, resource monitoring significantly contributed to project deliveries through risk avoidance by ensuring that the stated activities are carried out effectively. The study concluded that resource risk management strategy significantly influences project deliveries of road construction project. A Company that sorts out issues related to delay of material, malfunction of vehicles, and absenteeism of competent workers thrives in delivery of road construction projects. Road construction company's management should devise

and implement resource risk management strategies. They should ensure safety of employees is guaranteed and motivate to maintain competent workers. Furthermore, equipment and vehicles should be regularly maintained to good working standard. Policy makers should draft laws and policies governing resource risk management strategies and enforce them to ensure each road construction companies follow them as stipulated.

Keywords: Road project construction, resource risk management, project delivery