

# Social - Cultural Environment and Performance of Roads Projects Funded by Nairobi Metropolitan Services Kenya

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**Abstract:** *As outlined in Kenya Vision 2030, successful road construction is a catalyst for economic development. As a result, the government has made significant investments in road development. Despite the government's continued investment in road construction, the country's road construction projects face a variety of obstacles that prevent them from being completed on time, incurring cost overruns, or failing to reach the required quality requirements. The study sought to determine the effect of the social - cultural environment on the performance of roads projects funded by Nairobi Metropolitan Services, Kenya. This study will be hinged on the Open System Theory. This study uses desk research. The study established from the literature reviewed that the social - cultural environment aspects such as local community literacy levels, community support, language and corruption practices affects the performance of roads projects. The study concluded that the social - cultural environment significantly affects the performance of roads projects. The study recommends that policymakers should hold seminars on the effects of social - cultural environment factors on performance in order to develop reasonable and realistic regulations and laws aimed at performance evaluation and improvement. To achieve high performance in road construction, both macro and micro environmental elements ought to be included in strategic planning.*

**Keywords:** Projects performance, Social - cultural environment, local community literacy levels, community support, corruption practices

## 1. Introduction

The business environments within which construction firms operate in keep changing. Firms that are reluctant to respond and cope with environmental dynamism hardly survive (Ogutu & Muturi, 2017). The length of time it takes to complete road projects is highly becoming a source of concern among stakeholders. Due to factors such as increased rate of interest by commercial banks, cost overruns, inflation, sponsor pressures, and the likelihood of disputes and claims leading to litigation or arbitration, this results to stress in road construction projects (Ahmed, 2021). Delays in project completion are the most common cause of performance issues in the construction industry.

Performance is referred as the achievement of goals put forth before engaging in a specific activity (Moses, 2019). Inability to predict deficiencies sooner leads to poor performance. Poor performance results in insufficient financial inflows, client dissatisfaction, and a negative impact on the corporate image as quality and timeliness of project completion are jeopardized. Delays cause initiatives to fail to benefit the intended beneficiaries and, as a result, increase the cost and time required to complete the project.

The docket of roads and infrastructure plays a vital part in accomplishing the Sustainable Development Goals, which are aligned with the realization of the Kenya Vision 2030 goals, by providing infrastructural facilities to the general public. These infrastructure facilities are provided through the construction, repair, and/or maintenance of roads, as well as road rehabilitation. The government has increased the amount allocated to the road sub - sector in order to achieve the big four agenda, the success of which will be realized

through infrastructure development. In Kenya, there is a high rate of delayed completion of road construction, as well as stalled projects (Otieno & Waiganjo, 2015). Time and cost performance of projects in Kenya is unacceptable with more than 70% of established projects are probable to reach time overruns of over 50%. Further, it is reported that 50% of the projects are expected to have a cost overrun of more than 20% (Rugenyi, 2016). For example, Thika Road (KARA, 2016), and Langata Road projects have finished late and over budget, just to mention a few. These reports contradict the inverse proportionality between time and cost as envisioned by the 'iron triangle' and the direct proportionality between scope and time and cost.

Rugenyi (2016) reported that over the last few decades cost overruns especially in the government funded construction projects have remained common with some projects recording up to 60 % increase from the original contract sum. Of even more concern is the fact that historical data shows no improvement in cost performance in the last few decades indicating that no significant learning has occurred in this area (Flyvbjerg et al., 2019). According to Musa, Namukunda and Ogolla (2016), the political, technological, economic and social environments are external elements for project environment.

## 2. Project Performance

Infrastructure projects are based on the constraints which include time, cost and quality (Sabahi & Parast, 2020). According to the Project Management Body of Knowledge (PMBOK) guide, the performance of a project measures include time, budget or cost, and quality, which are the hindrances of performance of a project (Sirisomboonsuk,

Gu, Cao & Burns, 2018). On the other hand, Assaad, El - Adaway and Abotaleb (2020) consider project performance to be the achievement of multiple, often competing project goals in output, cost and quality terms. As a result, project outcomes entails the execution and evaluation of a project with the primary goal of making sure the successful closure within the set time, using the expected resources, and achieving the desired results. Time, according to Gruden and Stare (2018), is a vital element and measure of project outcome.

Time is a valuable resource in project management. It is irreversible, restricted, and dynamic (Adeojo, 2012). It is a vital aspect in defining project success (PMI, 2013). Because projects are time - bound, a definite start and end time should be established throughout the project planning phase. Time performance is also a significant measure for analyzing project performance, (Memon, Rahman, & Azis, 2012). Many projects around the world are running behind schedule. In Malaysia, time overruns occur in 79.5% of governmental projects and 66.25% of private projects (Memon et al., 2012).

Extending the project execution time, will result in higher costs owing to additional supplies, manpower, financial charges, and contractual penalties (Solis - Carcano, Corona - Suarez, & Garcia - Ibarra, 2015). Memon et al. (2012) ascribed time overruns to the internal and external influences. Social, political, technological, economic and environmental elements are among the external elements (Akanni et al, 2014).

Quality is an important indicator of a project's success. To conclude that a project's performance is satisfactory, time, cost, and quality outcomes must be considered. The project's novelty, a lack of knowledge and abilities to translate ideas into quality outcomes, and a lack of grasp of quality standards and distinctiveness, and project hazards all affect the quality of a project (Stojcetovic et al., 2014). The persistent delays in completion of the project and budget overrun in Kenya, as in most other developing countries, demand research to uncover the elements that cause poor project outcomes. This research will aim to confirm if social - cultural environment impacts on the success of NMS - funded road improvements in Kenya. In this study, a project's degree of performance is defined as a combination of time, cost, and quality.

#### **Performance of roads funded by Nairobi Metropolitan Services**

Nairobi Metropolitan Service has commenced the process of rehabilitating 38 roads in the Industrial Area in its continued bid to give the city roads a facelift. Major General Mohammed Badi's institution has started the contracting procedure for the reconstruction of the roads that have been separated into lots. Lot 1 roadways in the region comprise Garage Road, Dar es Salaam Road, Homa Bay Road, Workshop Road and Pate Road.

Under lot seven are Migwani Road, Chogoria, Isiolo, Wajir, Bandari, and Jirore Roads whereas lot 8 comprises Butere, Yarrow, Bunyala and Factory Street which are all due for rehabilitation. Ndume, Mogadishu roads, Nyahera,

Lokitaung, and Runyenje, as well as non - motorized transport in the area, were among the last to be lost. By March 10, 2021, NMS solicited eligible and interested bidders to submit offers for the following tenders. Since its inception, NMS has been active in the re - carpeting and upgrading of city roadways. City Hallway, Moi Avenue, and Wabera Street have all been completed in the Central Business District, with Grogon and Kirinyaga Roads approaching completion (Thiong'o, 2021).

The NMS has also been able to install NMT infrastructure along Kenyatta Avenue, Wabera Street, and Muindi Mbingu Street, all of which have been upgraded and pedestrian and cycle paths built. The project's goal is to provide safe walking and cycling spaces for residents who prefer to cycle or walk instead of taking public transportation in the capital. NMS announced in September 2020 that it intended to accelerate road repairs in Nairobi following the completion of a new asphalt (bitumen) plant on Kangundo Road. The plant produces 2, 400 tonnes of bitumen per day, adequate to recarpet three kilometers of road. Previously, Nairobi County relied on asphalt produced by a plant on Nanyuki Road in the Industrial Area, which only produced 150 to 300 tonnes of asphalt per day (Zhanglan, Awino & Ogolla, 2019).

While donor assistance to governments and non - governmental organizations for alleviating poverty has grown, so has poverty in Developing countries (Assaad, El - Adaway & Abotaleb, 2020). In Uganda, most donor - funded projects exhibit irrationality, as well as a poor risk assessment and management system (Mujabi *et al.*, 2015). The "Northern By - pass Project," that was finished over two and a half years late, had an overruns of more than 100 percent of the planned cost (Jones, 2020).

#### **Socio - Cultural Environment**

The firm's socio - cultural environment has a substantial impact on its success, according to Makoveyenko, Siden, and Pyliavskyi (2020). This study will focus on the external causes of project hazards, which include social - cultural, economic, political and technological elements. To attain the appropriate quality and performance levels, quality management procedures ought to be utilized. Project quality management, according to Stojcetovic et al. (2014), encompasses the procedures and undertakings involved in finding out the firm quality policies, goals, and duties that meet the project's needs.

Ahmed, Mohamed and Ahmed (2014) suggest that beliefs, values, and lifestyles of a society are influenced by socio - cultural forces. They further expound that socio - cultural forces influence sales of services and products through the enhancement of sale of services and products of an industry while suppressing those of others. Consumer purchases are strongly influenced by cultural, social, personal and psychological characteristics; generally marketers can't control these factors but instead take them into account (Kirui & Moronge, 2016). Olawale and Sun (2018) suggest that there are internal and external factors that influence consumer behavior; external factors include economic, demographic, situational, social and technological factors

while internal factors include attitudes and beliefs, learning needs and motives, perception and values, and personality.

Sang (2015) reinforces this by explaining the buying behavior and choices of persons are influenced by four major psychological factors: perception, motivation, beliefs and attitudes and learning. Attitudes describe a person's consistent feelings, evaluations, and inclinations towards an idea or object, thus they place people into a mind frame for disliking or liking things, for moving toward or away from them. The creation of target market strategies is, therefore, widely viewed as integral to formulating a business strategy that is effective bringing the market segmentation concept which is often cited as essential to establishing a target market strategy (Afande, 2013).

### 3. Problem Statement

Any firm must update its systems to survive and grow in a market marked by changing economic times and systems powered by a range of reasons. Successful road construction is an impetus to Kenya's economic development, as indicated in the Kenya Vision 2030 (Zhanglan, Awino & Ogolla, 2019). For example, in the fiscal year 2016/2017, KeNHA planned to develop 13, 138.72 kilometers of road at a cost of KSh.20, 459, 228, 001, whereas KeRRA planned to maintain 28, 243 kilometers of road with a budget of KSh.10, 893, 617, 021. KURA, on the other hand, projected to spend \$5, 106, 382, 979 to maintain 2, 338 kilometers of road. Despite the government's continued investment in road construction, Macharia (2016) laments that approximately 55 percent of all road construction projects in the country face a slew of obstacles that prevent them from being completed on time, incurring cost overruns, or failing to meet quality standards. Furthermore, according to Gathoni and Karanja (2016), the majority of building projects funded by Constituency Development Funds (CDF) in the County were either poorly constructed (30%) or not completed at all (50%) and only 20% were completed and performing (Akal et al., 2017).

Despite the involvement of stakeholders in the Nairobi Metropolitan Services to mitigate on risks from the social - cultural environment, the influence of social - cultural environment on the performance of Roads projects funded by Nairobi Metropolitan Services still remained unclear, thus signifying gaps which necessitated an examination of relationships between these variables (Mwangi, 2020). If the situation is not looked into and rectified, it will be challenging for the devolved and county governments to make huge and proper capital development budgets and time appropriations for construction of roads hence this might impact negatively to the county government with regards to planning for infrastructural projects. Due to the waste of money and time, as well as the deterioration of road quality in the county, there is a need to conduct research to determine the effect of the social - cultural environment on the performance of Nairobi Metropolitan Services, Kenya.

### 4. Theoretical Framework

This study will be hinged on the Open System Theory. Bertalanffy (1968) is considered to be the founder and the

main proponent of the general systems theory described the organization as an open system by advancing that, organization like a biological organism is made up of interacting elements and is open to and interacts with its environment. Katz and Kahn (1978) while advancing on the original views of organization as an Open system advanced that an organization is a system with boundaries that separate it from its environment. The contexts in which organizations operate have been discovered to contain political, economic, social, technological, and legal influences (Wernerfelt, 1984). This means that when senior managers make plans, they will be influenced by the social - cultural environment and must ensure that strategic decisions are taken in light of the environment's dangers (Ansoff & McDonnell, 1990).

The proponents of OST argue that a firm's longevity is determined by its link with the surrounding (Wernerfelt, 1984). However, opposing view against the open systems perspective advances that organizations on their own are relatively stable entities and that on the contrary, dominant organizations at times influence the environment within which they exist (Rumelt, 1979). The theory has also been chastised for failing to embrace an integrated, interactive strategy based on numerous resource dependence techniques, implying that little is understood about how diverse strategic management methods, such as ERM, interact. This necessitates investigating multiple resource dependencies, such as the impact of organizational leadership and varied strategy linkages (Kim & Lim, 1988). In this study, an open system guided the idea of social - cultural environment influence on road project performance.

### 5. Conceptual Framework

The conceptual framework aids in outlining the dependent and independent variables so as to provide guidance to the study. The variables of focus are on the link between the social - cultural environment and the performance of Roads projects funded by Nairobi Metropolitan Services Kenya.

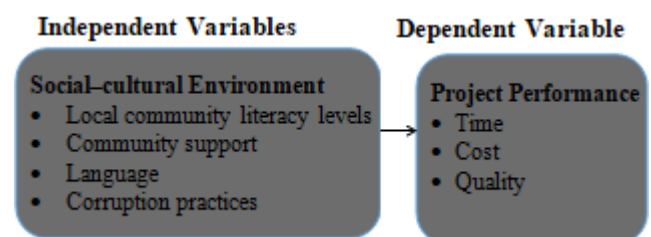


Figure 1: Conceptual Framework

### 6. Research Methodology

Desk research was used in this study. Desk research is largely associated with acquiring information from existing sources; as a result, it is generally viewed as a low - cost technique when compared to field research, as the primary cost is time (Caruth, 2013). Desk research is very effective and can be conducted in the early stages of market research because it is quick and inexpensive, and most basic information can be easily obtained and used as a benchmark in the research process (Morse, 2016).

## 7. Discussions

The findings of the previous studies have established that social - cultural environment aspects such as local community literacy levels, community support, language and corruption practices have a major implication on the implementation and performance of various projects. Krammer, Strange, and Lashitew (2018) study findings show that political instability and bribery have an impact on export inclination, whereas enterprises' export intensity is determined by the availability of trained personnel and adherence to international quality standards. Further, Sung and Wen (2018) investigated how political-economic factors might influence the market for renewable energy technology exports. The results of the least squares dummy variable - corrected estimator demonstrate that, in order to decrease relevance, public pressure, local community literacy levels and government demand - pull policy are the key determinants driving renewable energy technology export specialization.

The macro environmental elements, according to Kormishkina et al. (2015), include political, socio - cultural and legitimate powers, all of which have a significant impact on export growth. Legal elements, on the other hand, included regulations and legislation that regulate foreign firms' entry into the local market, technical norms and different legal restraints, restrictive import policies such as high tariffs, and legal barriers that prevent acts such as bribery and corruption. The measuring of social variables vs. performance had the most dispersed answers, with 35.3 percent of respondents attributing performance to socially connected elements such as population size, cultural and religious beliefs, poverty levels, attitude, local community literacy levels perception, and education levels. The degree of performance experienced had a strong impact on all social - cultural environment parameters.

## 8. Conclusions

According to the studies reviewed, social - cultural environment has a significant effect on the road projects performance. The social - cultural environment aspects such as local community literacy levels, community support, language and corruption practices were all discussed. All of these characteristics had varied degrees of impact on performance, but when taken together, they had a considerable impact. For the performance of road projects, political and government commitment is a vital success factor. Setting up effective road projects demands buy - in from the highest levels of government and politics. Good political leadership is essential to ensuring that road projects meet their goals; appointing a capable high - level champion to lead the program will ensure transparency, accountability, and stakeholder buy - in. Both the legislative and executive branches of the Kenyan government enact laws to help road projects gain traction in the country.

## 9. Recommendations

Policymakers should hold seminars on the effects of social - cultural environment elements on performance in order to

create reasonable and realistic regulations and legislation aimed at performance evaluation and enhancement. The road projects in Kenya should develop new and novel products and marketing techniques that will help bridge the gap between diverse cultures, faiths, and socioeconomic levels. To attain optimal performance and keep ahead of her competitors' approaches, road projects must invest in and fully employ new technology infrastructure. In the event that the social - cultural environment conditions change, the road projects must immediately adapt and be resilient enough to recover from any setbacks.

Both macro and micro environmental variables should be included in strategic planning to attain high performance in road building. Review studies should be done on a regular basis for performance monitoring and the establishment of key performance indicators. Workers' perspectives should be taken into account during strategic planning because they are the ones who are most affected by environmental challenges.

To reduce the occurrence and frequency of corruption, prosecuting corrupt authorities and blacklisting corrupt enterprises should be implemented. In terms of road project laws, an effective process for conflict resolution should be established, with the parties' responsibilities clearly outlined.

The research suggests that the national and county governments provide incentives and create an enabling political environment for the successful implementation of Nairobi Metropolitan Services - funded road projects. Political conflicts should be avoided because they delay down the building phase of Nairobi Metropolitan Services - funded road projects. Local political leaders should work with their national counterparts to secure guarantees for Nairobi Metropolitan Services - funded road construction. Political leaders in Nairobi County should provide political support to players involved in road construction projects.

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