

**DETERMINANTS OF THE QUALITY OF BUILDINGS BY CONTRACTORS WITHIN  
MAVOKO MUNICIPALITY**

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**ABSTRACT**

Construction industry is big in terms of its contribution to the economy; its performance affects the performance of the economy. Knowing the factors that affect the performance of the industry deserves undivided attention. Building contractors are one of the key players in the industry and their performance too is important. This study sought to investigate the factors affecting the performance of the building contractors especially in Mavoko Municipality. The objectives of the study were to determine the effect of quality of workmanship on performance of building contractors, to investigate the extent to which statutory requirements affect the performance of building contractors, to examine the effect of project management capabilities on the performance of building contractors and to establish the extent to which government supervision has affected the performance of building contractors.

The study adopted a descriptive research design using purposive sampling method to come up with a sample size of 50 respondents. The target population for the study was the building contractors in Mavoko Municipality and its environs and the clients involved in Mavoko Municipality building construction. Out of the target population, 32 employees were targeted from the construction companies together with 18 clients making total sample size to be 50. Purposive sampling was used to attain this sample size. The instrument for collecting data was the questionnaire. The data collected was analyzed using descriptive statistics using measures of central tendencies.

The findings indicate that contractors motivated and trained their workmen; implemented QMS and guided their clients in getting all necessary information useful and important for their projects. All construction projects by contractors operating in Mavoko municipality were under the governance of legal framework/regulations, codes and standards set by the government that contractors must adhere to. Construction companies operating in Mavoko had programs for leadership development; understood the technological changes occurring in the industry and had training programs adapted to current changes to offer better services. The companies were also found to rely on clients' payments for their projects, a source that inconvenienced them sometimes when delays happened. The study recommends that all construction companies operating in Mavoko municipality implement significant investments in motivating and training their workmen as this is a major determinant of quality services. Contractors should also provide proper site supervision for their projects by ensuring that the right and qualified supervisory personnel are involved so as to achieve high quality in their constructions. Bureaucracy should also be fully scrapped from the building and construction industry as it reduces incidences of shortcuts and corruption among construction companies. The government should be in constant review of the regulations, codes of conduct and standards set for constructions and constructors so as to ensure that the regulations are best to work for better quality constructions. Leadership development programs in construction companies should be strengthened to enhance them developing adequate and competent workforce for construction companies. The construction companies operating in Mavoko municipality should look for alternative sources of finances and not entirely depend on their clients' payments to complete projects.

**Keywords:** *Determinants of The Quality Of Buildings By Contractors.*

## Introduction

The construction industry is a multibillion shillings industry with one tenth of the global economy occupied by construction and building of homes and offices (UNEP, 2003). It also contributes to the economy of any nation and is seen as a very critical contributor of a nation's Gross Domestic Product (GDP). Construction industry is quite broad. The housing sector is one of the sector's backbone that determines the success and failure of the industry. The performance of the industry and its contribution to the welfare of the society in comparison to other industries such as the manufacturing industry has lately been the focus of many commissioned reports and

academic research publications (Lind, 2005). This is because, the success of a project in the industry; be it building or construction is very critical.

There are critical factors that affect the success of construction projects. As identified by Razak, Jaafar, Abdullah and Muhammad (2009), these include the efficiency of the project manager, the appropriate scheduling of activities, a systematic responsibility and monitoring approach, project supervision and finally continuous project involvement. Some other factors are organizational philosophy, management support, apt job delegation and scope, selection of project team members, sufficient allocation of resources, a practical information mechanism and a review of project planning. Morris and Hough (1987) adds to the list clear project objective, innovativeness towards technological change, community participation, priority based scheduling, finance, legal requisites, contractual ties and problem solving.

Measuring success of construction works is a complex and complicated endeavor that require the performance of the process to be monitored. In building industry, the performance of the contractors is just as important. Performance measurement is an integral part of any business and building contractors are not an exception (Sawacha, Naoum and Fong, 1999). The importance of identifying an organisation's performance is evident throughout the world-wide markets, the results of which are to attract future investment, increase share value and attract high calibre employees. Therefore, it is important to consider the performance of contractors in the building industry and how it can be understood and interpreted by potential investors, employees and clients. The basis of formulating performance indicators that achieve the latter have been in operation as early as the beginning of our century (Adnan, Khalid and Sherif, 2006).

The main players in the building industry include the clients and building promoters which include the public sector, the private sector and individuals, the contractors who execute the work, professionals from the building and construction industry which include architects, engineers, surveyors and lawyer. Other players are resource input manufactures for construction materials, machinery and transport. Banks and financial institutions not left behind (Njuguna, 2009). According to Xiao and Proverbs (2002) international comparisons of contractor performance can provide robust benchmarks for contractors in different countries and allow them

to learn from one another. The contractors who execute the work are vital since they are the ones who ensure that the building is done and so their performance is just as important.

Performance in general is the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed. In a contract, performance is deemed to be the fulfillment of an obligation, in a manner that releases the contractor from all liabilities under the contract (Business dictionary, 2012). The correct choice of building contractor(s) is a critical function of either the client or the client's consultant/project manager. The time taken to execute a project by a contractor reflects his ability to organize and control site operations, to optimally allocate resources and to manage the flow of information to and from the design team (Xiao and Proverbs, 2002). To determine a contractor's performance with regard to a forthcoming project, appraisal of current workload and resource capacity as well as performance of recent projects is necessary. The performance of a project will definitely correlate with the performance of a contractor.

The increasing competitiveness of the building industry motivates companies to assess performance and implement efficiency improvement strategies in order to obtain competitive advantage. To raise the levels of competitiveness, contractors are required to increase the use of performance assessment tools as a means of supporting performance improvement programmes (Ajayi, Ogunsanmi, Ajayi and Ofili, 2010). The major indicator of contractor's performance is the client's satisfaction as poor performance is indicated by poor work quality, low productivity in addition to cost over-runs, rework, late completion, unacceptably high accident rate, insensitivity to environmental considerations, poor work practices and adversarial relationships (Poon, 2003).

The construction industry, especially residential construction sector, according to industry analysts is growing rapidly as both the government and private developers are trying to keep up with the soaring demand for housing which can be attributed to the rise in population (KenyaBuilding, 2010, ). The opportunities exist particularly in the construction of middle and low income housing, manufacture and supply of building materials, renovation and rehabilitation of transport infrastructure. It is therefore prudent to ensure that work done is of good quality thereby calling for the evaluation and monitoring of building contractors. The government,

acknowledging this urgency has announced the formation of an authority charged with the responsibility of overseeing all the aspects of construction in the country (Mwakio, 2012). The National Construction Authority (NCA) that will be officially unveiled on 4<sup>th</sup> July will have the mandate to reign in both private and public sector players involved in the construction industry to ensure that there is conformity with building laws in the country.

Mwakio (2012) reports that the authority is expected to eliminate the events of unscrupulous contractors who shoddy jobs in construction work thus leading to collapse of buildings. This will see an improvement in the building industry as contractors will have to comply with the regulations of the authority. Kenya has over a spate of time seen huge residential and commercial buildings caving in leading to destruction of property and loss of lives with initial findings pointing to sub standard work on the side of construction.

### Statement of the Problem

Kenya has for a long time suffered from contractors who do shoddy jobs in the building industry leading to loss of huge amounts of property, something that could be avoided if proper procedures are followed (Mwakio, 2012). Given the rapid growth in the sector as the government and private developers try to meet the demands of a rising population, contractors also keep up with the pace without taking into considerations important requirements to the industry like having quality workmanship and sufficient capacity to perform the work. Clients also sign out contracts without investigating thoroughly on the procedures to be followed. Mwakio (2012) noted that many building projects report poor performance.

The sector is also being faced by a myriad of challenges that threaten its performance. These challenges are mostly in quality assurance range and result in such things as collapsing of buildings to constructions on reserved land like the one intended for road expansion and public utility facilities. The contractors deliberately tender at low rates with the aim to later canvass for change in specifications if awarded the contract. A number frustrate the contract and eventually submit very huge claims (Okemwa, 2011).

It is against this background that the study seeks to determine the factors affecting the quality of building within Mavoko Municipality. The identification of these factors, the causes of poor

quality of buildings and a measurement of their severity, would provide useful information that would allow contractors to act to reduce their negative image that is associated with poor quality of their constructions.

## Objectives of the Study

### General Objective

The main purpose of the study is to find out factors that determine the quality of building by contractors within Mavoko Municipality

### Specific Objectives

- i) To determine the effect of quality of workmanship on the quality of building by contractors in Mavoko Municipality.
- ii) To investigate the extent to which government requirements affect the quality of building by contractors in Mavoko Municipality.
- iii) To examine the effect of project management capabilities on the quality of building by contractors in Mavoko.
- iv) To establish the extent to which contractor's financial availability affects the quality of building by contractors in Mavoko.

### Literature Review

The issue of measuring performance in organisations is evident all over the world with majority of worldwide markets measuring performance in order to attract investment, increase that share value, attract professional staff and to have good reputation within the market. With this, it is therefore very important for organisations to consider how performance is measured and communicate it to the wider market so that nothing is left to chance. Organisations also should consider the performance information relayed to the market will be interpreted by the stakeholders involved including the investors (Kagioglou, Cooper and Aouad, 2001). A majority of firms consider continuous performance as one of their core objectives. This is because the growth and progress of firms rely on their performance.

There are a number of theories that can be used to explain performance that can also be applied to building contractor performance. These theories explain delegation of duties, motivation, participation and performance appraisals as substantial factors in effective delivery and improved performance. The expectancy theory tries to give the relationship between motivation and performance in worker behavior explaining that individual's level of motivation in performance of a task depends on how he rates the attractiveness of the result that an improvement in his performance will have, how he estimates the probability that increased effort will lead to better performance, and how he perceives the probability that better performance will lead to the desired result (Warren, 1989). The theory points out that the perceived probability is the driving force of the worker and not the results parse. For example, an increase in effort can lead to improved performance; of which may not necessarily lead to a pay rise. Whether it does or does not, his motivation depends on what he expects would happen in the situation (Muche, 2011).

There is the incentives versus transaction costs theory of contractor contracts states that; cost-plus contracts are preferred to fixed-price contracts especially when a project is more complex. In this case, the standardization in the contracts used in building construction is avoided. While there are many forms of alternative contractual arrangements used in the industry, cost-plus and fixed-price contracting are the commonly used. Fixed-price contracts are mainly awarded through competitive bidding, while cost-plus contracts are frequently negotiated between a buyer and contractor (Bajari and Tadelis, 2001).

To ensure the quality of contractors, the valuation can be done beforehand with a prequalification method. The quality is measured on performance and performance measurement system is used as management process and act as a mechanism that enables assessment to be made (Ong and Teh, 2008).

Project performance is determined by decisions made by the project management team. In today's marketplace, there are a number of construction choices from which owners can decide as the methods and procedures for construction have expanded with administration process alternatives becoming limitless. Project management and construction management have become almost the same though project management is the conventional method of construction administration. Here, the owner has direct contracts with both the consultant and the contractor

and makes the final decision. Construction management is a progressive, more convenient method of construction project administration. In this the owner has only one direct contract with the construction manager (USDT, 2005). Project management is mainly designed to control the important elements that provide practical information for achieving project objectives in an efficient way to ensure that the delivery is in time and within specifications (Najmi, 2011).

In construction industry, construction project management has the same main objects as project management which are cost, time and performance only that in construction project management refers more to people and the importance of working through others (Najmi, 2011). Construction project management also considers client satisfaction as one important key to project success as well as the objectives and goals of the company itself. Performance management is important though measuring it has been an uphill task due to lack of consistent data across various firms. Performance monitoring is one of the practices that can be applied to evaluating contractors. According to Bloom and Van Reenen (2006), performance can be termed as good if it is continuously tracked and communicated, both formally and informally, to all staff using a range of visual management tools. It can also be reviewed based on indicators tracked while actions are focused on problem solving.

Traditionally, the main performance indicators have been believed to depend on finances like return on investment, sales per employee, and profit per unit production. This has long changed since performance is today measured in different perspectives and also depends on various organisations. Economic competition, organizational shared knowledge, and innovative knowledge creation are determinants of continuous organizational capabilities and sustainability which is an indication of good performance (Ichijo and Nonaka, 2007). Abosede, Arogundade, Adebisi and Akeke (2011) adds that performance of an organisation depends on the managerial skills and performance in relation to their employees, effective and efficient allocation of resources and the environment within which the organisation is operating.

In construction industry, the contractors are normally categorized in which the categories can then be used for contract award and prequalification. Many states often categorize them into various groups based on their capacities as well as their previous performance (Nassar, 2008). The contractor performance can be measured using the characteristics of the project, the

contractor's internal attributes and the external influence of the project team. These trickles down to the ability to handle complex project, working experience, percentage of professionally qualified staff of the contracting firm, past performance of the contractor, origin of the contractor and the level of the architect's or client's supervision and control of the quality of work and work progress (Xiao and Proverbs, 2002). There should be emphasis on the contractor's past record for completing projects on budget and to an acceptable level of quality.

### Empirical Review

Good performance of the building industry is highly dependent on the quality of the workmanship as a majority of poor performance results from ignorance, negligence and greed of the contractors (Bolaji, 2002). Ignorance is mainly attributed to the incompetence of the personnel in charge of design, construction or inspection, negligence comes in for example when specification writing of a past project is adopted for another similar project without crosschecking the contents to see if it matches with the current project or if it needs improvements. Greed on the other part is diversion of building materials meant for the production and the use of sub-standard materials so as to achieve high profit (Oke, 2011). All these three aspects, are very dangerous to the building industry and if not dealt with appropriately results in poor performance.

The most important aspect of a quality project is the workmanship (Iwaro and Mwashu, 2012). If not monitored properly unfortunately, poor quality workmanship can destroy projects already put in place. Presently, there has been a gradual but noticeable paradigm shift in the field of quality. Organisations have realized that the only way to understand how an organization operates, and thus improve its workmanship performance, is by implementing a quality management system (Nanda 2005). Due to this shift in management style and quality profession, certification process has become part and parcel of a majority of companies with achieving ISO certification being viewed as mandatory. Achieving an ISO 9001-certified quality management system is viewed as the establishment of the necessary infrastructure to manage and continuously improve an organization's processes. Poor workmanship is attributed to either inappropriate use of a component or materials, use of a material adjacent to or in combination with another that

adversely affects it or lack of knowledge by the designer regarding the potential deterioration of a material and poor design (Carillon 2001).

According to Chong (2006), factors that contribute to the poor quality of construction workmanship are no proper monitoring of projects, poor quality of materials used, and lack of proper site supervision due to inconsistent supervision. There are cases where the inadequacy on the part of the client leads to poor performance especially at the inception of the project when the client fails to give all the necessary information on the functional requirements of a building. The contractor should be able to guide the client in getting all the necessary information he may find useful and important for the project. These inadequacies contributes to the design deficiencies that subsequently leads to building structural collapse or hazardous for existence.

In Nigeria as indicated by Olusula (2002), there is need for quality control measures in material utilization within the construction industry. He says that neglect of quality control in the construction industry has resulted in many defective buildings and the rise in number of collapse buildings. He gives the factors that affect the performance and quality of buildings. These are mentioned as material and testing variability, contractors' variability, poorly skilled workmen, inadequate maintenance and unprofessional conduct.

## Data Analysis/Findings

### Company experiences payment delays that affect project progress

The study investigated whether the construction companies experience payment delays that interfered with the progress of projects. The collected findings are presented in table 4.17.

**Table 4.17: company experiences payment delays that affect project progress**

	Frequency	Percent
Strongly disagree	5	12.5
Neither disagree nor agree	5	12.5
Agree	20	50.0
Strongly agree	10	25.0
Total	40	100.0

Majority of 75% agreed that construction companies operating in Mavoko municipality experienced payment delays that interfered with progress of projects. Since the construction companies depend on client payments for sustaining their projects, certainly delays led to interference with the projects. The findings are similar to the one presented by Mohd, Mastura, Omar and Sher (2010) that when there is a lot of dependence on clients' payment, the construction company can be inconvenienced in case of delays in payment.

### Availability of cash management system in the construction companies

The study enquired whether construction companies operating in the study area had established system of managing cash flow and accounts records. The collected findings were as shown in table 4.18

**Table 4.18: The Company has an established cash management system**

	Frequency	Percent
Strongly disagree	5	12.5
Disagree	5	12.5
Neither disagree nor agree	5	12.5
Agree	15	37.5
Strongly agree	10	25.0
Total	40	100.0

Majority of 62.5% respondents agreed that construction companies being studied had an established cash management system. This shows the significance the construction companies had put in the process of financial management. Since finances are an important resource for completing construction projects, investment in a system that would ensure better management of cash was crucial hence the finding. The findings are similar to the ones presented by Low (2010) and Laryea (2010) that cash management system is an important part of a construction company based on the nature in which the company gets paid (in a long duration).

### Sometimes the company gets overwhelmed in procuring materials

The study also investigated whether sometimes the construction companies get overwhelmed in procuring necessary construction materials due to cost related issues. The collected results were as presented in table 4.19.

**Table 4.19: Sometimes the company gets overwhelmed in procuring, materials due to cost issues**

	Frequency	Percent (%)
Strongly disagree	5	12.5
Disagree	10	25.0
Neither disagree nor agree	10	25.0
Agree	10	25.0
Strongly agree	5	12.5
Total	40	100.0

As shown in table 4.19, the number of those who agreed and those who disagree were same. Thirty seven point five percent of respondents agreed while another 37.5% disagreed that construction companies operating in Mavoko municipality got overwhelmed in procuring materials due to cost related issues. These results indicate that in a significant number of companies operating in Mavoko, being overwhelmed in procuring materials due to cost issues was common. However, in another significant number of companies, the opposite case was reported hence the findings.

#### **Company has invested heavily in technical capabilities and capacity to perform duties**

Concerning whether construction companies in Mavoko municipality had invested heavily in technical capabilities and better capacity to perform duties, the findings presented in table 4.20 were collected.

**Table 4.20: Company has invested in technical capabilities and better capacity to perform duties**

	Frequency	Percent
Neither disagree nor agree	5	12.5
Agree	15	37.5
Strongly agree	20	50.0
Total	40	100.0

As shown in table 4.20, 87.5% of respondents agreed that construction companies in Mavoko municipality had invested in technical capabilities and better capacity to perform duties. This may be so as to have expertise that will give the best performance when it comes to construction projects. This findings concur with the earlier one presented by Wilkinson and Reed (2008) that

financial availability/adequate funding ensures hiring of skilled workforce and quality equipment which are prerequisite for quality building and hence good performance constructions.

## REFERENCES

- Abosedo A. J., Arogundade K. K., Adebisi O. S. & Akeke N. I. (2011) Managerial Determinants Of Organisational Performance In Nigeria: Evidence From The Banking Sector. *Journal of Management and Society*, Vol. 1, No 2, pp. 10-15,
- Adnan E., Khalid A. & Sherif M. (2006), Causes of contractor's business failure in developing countries: The case of Palestine, *Journal of construction in Developing Countries*, Vol. 11, No. 2, PP. 1-14
- Ajayi, O. M., Ogunsanmi, O. E., Ajayi, K. A. & Ofili, C. M., (2010) *Factors Affecting Performance of Contractors on Construction Projects in Lagos State, Nigeria*, The CBRE Research Conference of the Royal Institution of Chartered Surveyors, Paris, 2-3 September 2010
- Aje O.I., Odusami K.T. & Ogunsemi D.R. (2009) The impact of contractors' management capability on cost and time performance of construction projects in Nigeria, *Journal of Financial Management of Property and Construction*, Vol. 14 Iss: 2, pp.171 – 187
- Arrigo G. & Casale G (2010) *A Comparative Overview of Terms and Notions on Employee Participation*, Working Document Number 8, International Labour Organization – Geneva, February 2010-09-16
- Basheka B. C. & Tumutegyereize M. (2010) *Measuring the Performance of Contractors in Government Construction Projects in Developing countries: Uganda's Context*; Competitive Paper, Proceedings of the 19th Annual IPSERA Conference 16 – 19 May 2010,
- Bolaji E.O. (2002) *Building materials specification and enforcement on site* In D.R. Ogunsemi (Ed.)
- Building Services Authority [BSA] (2010) *Introduction to Building in Queensland*, Better Building Shows: Available at

<http://www.bsa.qld.gov.au/SiteCollectionDocuments/BuildersContractors/Publications/1styearlicenseebooklet.pdf> Accessed on 27/06/2012

Building Work Contractors (Act 1995), *South Australia Building Work Contractors Act 1995*, Version: 28.5.2012: Retrieved from <http://www.legislation.sa.gov.au/LZ/C/A/BUILDINGWORKCONTRACTORSACT1995/CURRENT/1995.87.UN.PDF> Accessed on 27/06/2012

Businessdictionary (2012) *Performance*, Retrieved from <http://www.businessdictionary.com/definition/performance.html>: Accessed on 26/06/2012

Carillon (2001) *Defect in buildings: Symptoms, investigation, diagnosis and cure*, 3rd edition. London: Stationery Office Ltd.

CEIM (2009) *Quality Management System for Consultant Supervision for Managing Performance of Building Contractors in Vietnam*, Retrieved from <http://professionalprojectmanagement.blogspot.com/2009/07/quality-management-system-for28.html> Accessed on 28/06/2012

Chan A. P.C. & Tam C. M. (2000) *Factors affecting the quality of building projects in Hong Kong*, International Journal of Quality and Reliability Management, Vol. 17, No.4/5, pp.423-441

Chong, C. Y. (2006) *The Implementation of Quality Management System in Analyzing the Workmanships' Performance of Projects*, Unpublished, University of Technology, Malaysia

CEIM (2011) *Contractor Prequalification Criteria, Tendering Criteria, and Tendering Procedure in Cambodia Building and Housing Construction Projects*, Professional Project Management Education Blog posted on Friday 1 JULY 2011, Retrieved from <http://professionalprojectmanagement.blogspot.com/2011/07/contractor-prequalification-criteria.html> Accessed on 28/06/2012

- Dare (2009) *Narrating the Nigerian Story: The Challenge of Journalism* The Nation Newspapers, 2009, July16, Retrieved from <http://www.thenationnewspapers.ng>
- De Vaus D. A. (2003) *Research Design in Social Research*, London: Sage Publications Lts.
- Department of Building and Housing (2006) *Building consent authority (BCA) accreditation and registration*: Retrieved from <http://www.dbh.govt.nz/bofficials-bca> Accessed on 27th June, 2012
- Enshassi A. (2009) *Factors affecting the performance of construction projects in the Gaza Strip*, Journal of Civil Engineering and Management. FindArticles.com. 27 Jun, 2012.
- Ichijo K. and Nonaka I. (2007) *Knowledge Creation and Management: New Challenges for Managers* Oxford University Press, New York .pp 3–10,
- Iwaro J. & Mwashia A. (2012) *The Effects of ISO Certification on Organization Workmanship Performance*, QMJ VOL. 19, no. 1/© 2012, ASQ, University of West Indies,
- Kagioglou M., Cooper R. & Aouad G (2001) *Performance Management In Construction: A Conceptual Framework*, Performance Management and Measurement Term Paper Research Institute for Design and Manufacture, University of Salford,
- Kajubu E. (2011) *Shoddy Work in Kabalore Blamed on Lack of Supervision*, Uganda Radio Network Online Article posted on 2011-07-19: Retrieved from <http://ugandaradionetwork.com/a/story.php?s=35447> on 28/06/2012
- Kent J. (2004) *Risk Management*, Professional builder, Aug 2004. 31-32
- Kimani M. & Musungu T. (2010) *Reforming and Restructuring Planning and Building Laws and Regulations in Kenya for Sustainable Urban Development*, 46th ISOCARP Congress 2010
- Kombrabail H. (2009). *Research Designs*, TYBMS, Retrieved from <http://www.scribd.com/doc/18132239/Research-Design>

- Legislation Review Program (2012) *Minor Assessment Statement: an Impact Statement on Proposed Changes to the Residential Building Marketplace, Residential Building Work Quality (Warranties and Disputes) Bill 2012, Version: 5.0, Date: 24 January 2012*
- Lind, H. (2005) *Bostadsbyggandets hinderbana: En analys av utvecklingen 1995-2001*”, ESO, Finansdepartementet, Ds
- Liu F., Meyer A. S. & Hogan J. (2010) *Mainstreaming Building Energy Efficiency Codes in Developing Countries: Global Experiences and Lessons from Early Adopter*, The International Bank for Reconstruction and Development/The World Bank, 1818 H Street NW Washington DC 20433
- Mbachu, J. & Nkando, R. (2007) *Factors Constraining Successful Building Project Implementation in South Africa*, Construction Management and Economics Vol 25(1) pg 39-54.
- McKinsey&Company (2010) *Building Organisational Capabilities*; McKinsey Global Survey results
- McNabb, D.E. (2008) *Research Methods in Public Administration and Non Profit Management: Qualitative and Quantitative Approaches, 2<sup>nd</sup> Ed.* New York: M.E. Sharpe, Inc.
- Morris, P.W.G. & Hough, G.H. (1987) *The Anatomy of a Major Project: A Study of the Reality of Project Management*. New York: Wiley & Sons)
- Mwakio P. (2012) *New authority to streamline building industry*, The Standard Newspaper; Digital Updated Friday, June 22 2012 at 14:55 GMT+3
- Nahinga D. (2011) *Becoming a Contractor: The Minimum Requirements*, Blog Article at UjenziBora,, posted on April 15, 2011 at 1:24 PM: <http://ujenzibora.com/nahinga/2011/04/becoming-a-contractor-the-minimum-requirements/>
- Nanda V. (2005) *Quality management system handbook for product development companies*, New York: CRC Press.

- Nassar K. (2007) 8 *Defining Contractor Performance Levels*, AIA Associate Professor, American University in Cairo <http://ascpro.ascweb.org/chair/paper/CPRT158002010.pdf>
- Nguyen D.L., Ogunlana S.O. & Xuan Lan, T.D. (2004) *A study on project success factors in large construction projects in Vietnam*, Engineering, Construction and Architectural Management Volume 11 · Number 6 pp. 404–413
- Njuguna H. B, (2009) *The Construction Industry in Kenya and Tanzania: Understanding the Mechanisms that Promote Growth*, DBA Presentation, The Construction Industry Value Chain: Available at <http://www.roundtableafrica.net/getattachment/Value-Chain-Research/Value-Chain-research/Value-Chain-research/Henry-B-Njuguna-Constructiton-Industry-in-Kenya---Tanzania-Understanding-the-Mechanisms-that-Promote-Growth-do.pdf.aspx>
- Oke A. (2011) *An Examination of the Causes And Effects of Building Collapse in Nigeria*, Journal of Design and Built Environment Vol. 9, December 2011, pp. 37–47
- Okemwa R. O. (2011) *Challenges Facing Kenya's Construction Industry*, Blog Article posted on Sunday, May 15, 2011; Retrieved from <http://robertonsare.blogspot.com/2011/05/challenges-facing-kenyas-construction.html> on 26th June 2012
- Oloyede S.A., Omoogun C.B., & Akinjare O.A. (2010) *Tackling Causes of Frequent Building Collapse in Nigeria*, Department of Estate Management, School of Environmental Sciences, College of Science and Technology, Covenant University, Ota. Ogun State, Nigeria
- Pearson A. (2011) *New Minnesota Laws Affecting Residential Contractors 2009 Through January 2011*, Alden Pearson Magazine, Legal and Business Advisors: Retrieved from [http://www.alden\\_pearson.com/blog/construction-law/new-minnesota-laws-affecting-residential-contractors-2009-through-january-2011/](http://www.alden_pearson.com/blog/construction-law/new-minnesota-laws-affecting-residential-contractors-2009-through-january-2011/) Accessed on 26/06/2012
- Poon, J. (2003) *Professional ethics for surveyors and Construction project performance: what we need to know*. Proceedings of the RICS Foundation Construction and Building Research Conference

- Rahman M. A. & Chileshe N. (2012) *Attitudes, Perceptions And Practices Of Contractors Towards Quality Related Risks In South Australia*, 18<sup>th</sup> Annual Pacific-Rim Real Estate Society Conference Adelaide, Australia, 15-18 January 2012
- Raynsford N. (2000) *Sustainable Construction: The Government's Role*, Proceedings of the ICE - Civil Engineering, Volume 138, Issue 6, 01 November 2000 , pages 16 –22 , ISSN: 0965-089X, E-ISSN: 1751-7672
- Razak A. A., Jaafar M., Abdullah S. & Muhammad S. (2009), *Work Environment Factors And Job Performance: The Construction Project Manager's Perspective*, Working Paper, Universiti Sains Malaysia, Penang, Malaysia
- Samson M. & Lema N. M. (2005) *Development of Construction Contractors Performance Measurement Framework* Department of Construction Technology and Management, University of Dar es Salaam, Tanzania
- Särndal C., Swensson B. & Wretman J. (2003) *Model Assisted Survey Sampling*. New York: Springer-Verlag.
- Sawacha E., Naoum S. & Fong D. (1999) *Factors affecting safety performance on construction sites*, International Journal of Project Management (1999), Volume: 17, Issue: 5, Pages: 309-315, ISSN: 02637863
- Sharp N. & Howard D. (2006) *Marketing Research: An Applied Approach* (Third European ed.). Harlow: Prentice-Hall International
- Takim R. & Akintoye A. (2002) *A conceptual model for successful construction project performance*, paper presented at the Second International Postgraduate Research Conference in Built and Human Environment, University of Salford, Salford, 11-12 April.
- Tongco M. D. C. (2007) *Purposive Sampling as a Tool for Informant Selection*, Department of Botany, University of Hawai'i at Manoa, 3190 Maile Way, Honolulu, HI, 96822 U.S.A. and Institute of Biology, University of the Philippines, Diliman, Quezon City, 1101, PHILIPPINES

- Usoro B. & Usoro P. (2003) *Press Singing and Praise Freedom*, Saturday Sun Newspaper, 2003 Nov., 8 p. 23.
- Voss M. (2011) *Impact of customer integration on project portfolio management and its success—Developing a conceptual framework*, International Journal of Project Management Volume 30, Issue 5, July 2012, Pages 567–581
- Xiao, H. & Proverbs, D. (2002) *Construction time performance: an evaluation of contractor from UK and US* Journal of Engineering, Construction and Architectural management Vol 9 (2), pp 81-89.
- Bloom N. & Van Reenen J. (2006), *Measuring and explaining management practices across firms and countries*, NBER Working Paper No. 12216, May, 2006.
- Najmi H. S. (2011) *Project Management for Construction Projects*, Unpublished Thesis; An-Najah National University, Faculty of Graduate Studies
- US Department of Transport [USDT] (2005) *Construction Management Practices in Canada and Europe*, e Federal Highway Administration's (FHWA), Office of International Programs FHWA/US DOT (HPIP), 400 Seventh Street, SW Washington, DC 20590