

CONTEMPORARY ISSUES ON ENVIRONMENTAL DEVELOPMENT

6TH EDITION

**BOOK OF READING OF FACULTY OF ENVIRONMENTAL STUDIES,
ABIA STATE UNIVERSITY, UTURU**



Editors

C. E. AZUBUINE, H. C. UMUNNAKWE & I.C. ENEOGWE

Table of Contents

1.	Courtyard Design System as a Technique to Control Thermal Effects in Interior Part of the Building and Promoting Occupants' Good Health: - Michael, Oguike C., Ifiok. Mfon E. and Luna, Bassey E.....	1
2.	Forms, Classification and Characteristics of Tourism: - Umunakwe, Henry C.....	9
3.	Effects of Cost and Time Over-Runs of Telecom Tower Construction on Project Sponsor-Manager Relationship in Mtn in Lagos Metropolis: - Chukwu, Chinaechetam.....	14
4.	The Importance of a Master Plan to the Development of New and Older Urban Centres: - Eneogwe, Innocent C.....	32
5.	Evolving a Planned Mixed Tenure Housing System: - Azubuine, Chika E. Allan, Joseph Usman.....	41
6.	Elements, Significance and Impacts of Tourism Development: - Umunakwe, Henry C.....	49
7.	Planning Sustainable Resettlement Environment for Internally Displaced Persons (IDPs) in Nigeria: - Eneogwe, Innocent C.....	57
8.	Architectural Design of Juvenile Rehabilitation Centres that will Psychologically Influence the Reformation among Juveniles Delinquent in all the Three Senatorial Districts in Akwa-Ibom State: - Michael, Oguike C. Ifiok, Mfon E. and Luna, Bassey E.....	64
9.	The Purpose of Visual Aesthetics in Consumer Satisfaction in Nigeria: - Azubuine, Chika E. Usanga, Peter S.	75
10.	Examining the Influences Imposed on Family Planning by Poverty in Developing Countries: - Obasi, Samuel C.E.....	86
11.	Examining the Implications of Demographic Modelling on Demographic Prediction in Nigeria: - Oti, Christian U.....	90

Chapter Three

Effects of Cost and Time Over-Runs of Telecom Tower Construction on Project Sponsor-Manager Relationship in Mtn in Lagos Metropolis

Chukwu, Chinaechetam

Introduction

Modern organizations operate in highly competitive environment. Customers are highly sophisticated and demanding of word class quality and service in everything. Customers are exceptionally impatient for products and services. Speed of customer service has become key. All strategies to win competition emphasize speed. Some experts' advice organizations to be fast or be last. All the projects in all corporate strategy are allocated timelines and task speed. A project must announce its completion dates. All stakeholders expect specified completion dates and cost. A project manager is highly sensitive to the resources of cost, time and quality. If pressure is put in cost, timelines go up. Similarly, if pressure is put on timelines, costs will go up (Baker and Cole 2007),

Gbahabo and Ajuwon (2017), Ahiaga-Dagbui et al.(2015), Elinwa and Joshua(2001), Abdulelah, Ahiaga-Dagbui and Moore(2017) Allahaim and Liu (2015). All projects stakeholders are anxious and curious about the tripod of project quality, project time and project cost or budget. In spite of the stakeholder vigilance and monitoring, many project are victims of time and cost overruns (Polat, Okay and Ekin 2014) Koushaki, Ali-Rashid and Kartem (2005), Fugar and Agyakah-Baah (2010) Polat, Okay and Ekin(2014) identified 38 factors of cost-time overruns which he classified into contract-related, time-related, cost-related, quality-related, Human resources related, Communication related and risk-related causes. Such words point to the powerful incidence of cost-time overrun in project management particularly in the micro-scaled organizations.

The implication of project cost-time (schedule delays) is the multi-dimensional consequences of project cost-time overruns. Gbahabo and Ajuwon (2017) have demonstrated that project cost-time overruns have far reaching consequences on projects performance or successes. For example, they have identified that project cost-time overruns create economic inefficiency, further delays in project scheduling, project abandonment, project disputes, project claims and costly litigations and project failure. They should have added negative or toxic relationships (Vertical and horizontal) between project sponsors and project beneficiaries, between project managers and project consultants. Toxic project relationship leads to behavioral and observable relationship such as non-renewal of project contract severance of project relationship, withdrawal of collaborative-supportive project relationship, Cash-N-carry project relationship, mercenary project relationship, win-lose project relationship, short-term-non committed project relationship or long-term mutual benefit project relationship. A short-term non-committed project relationship makes the project manager a mercenary, a cash-and-carry operator. The project managers do

not expect to do work again for the sponsor. This increase the cost of projects through fresh tiding processes and documentation for the project sponsor. For a project manager, it creates a fluctuating trend of project activity and non-activity.

Above all, it leaves the project manager with a devastating image of inability to have a successful long-period project relationship. This stigma damages project managers (Contractors) more and more. This leads to project managers' business failure or bankruptcy or business shutdown. A long-term project relationship carries positive mutual benefit between project sponsors and project manager (Contractor). This perspective can be applied to telecommunication construction projects in MTN. What is the effect of the telecommunication construction project time-cost overruns on project sponsor (MTN) and project managers (Telecommunication Tower construction project)? Do Telecommunication Tower construction cost-time overruns produce short-term non committed project sponsor-contractor relationship in MTN, Lagos? Do the telecommunication Tower construction cost-time overruns create long-term relationship?

Previous Studies on project cost-time overruns have tended to focus on the causatives of project cost-time overruns (Polat, Okay and Ekin 2014), Elinwa and Joshua (2010), Fuger and Agyakwah-Baah (2001), Buys (2015), Alinaitive Apolot and Tindiwensi (2013), Allahain and Liu (2015). This study is a shift away from causes of project cost-time overruns to the effect of project cost-time overruns on the project sponsor-project manager (Contractor) relationship. Project cost-time overruns have diverse effects such as inefficiency in the allocation of financial resources, abandonment of projects, contractual disputes, claims, litigation and even project failure. These consequences have par-reaching effects on the business relationships between the project sponsor and the project manager (Contractor) Possible relationship behavior can be confrontational relationship which can generate litigation and termination of project life or contract.

There can be a mercenary relationship (short-term cash-n-carry, no steady relationship). It can result into a partnership, collaborative supportive, mutually beneficial relationship between project sponsor and project manager. This study aims to examine relationship between telecommunication Tower Construction Cost-time overruns and the partnership-collaborative-supportive relationship between MTN (project-sponsor) and Telecommunication Tower Project Manager (Contractor).

Review of Major Topics in the Concept

Project Stakeholder Relationship

Project stakeholder is anyone who has interest (direct or indirect) in the project deliverables and outcomes (Young 2000), Meng and Boyd (2017), Francesco, Maddaloni and Dans (2018).

According to Young (2000) project stakeholder can be an individual who acts independently or may represent an organization. The stakeholder has the right to relate, share information with other stakeholders such as the project manager or customers. This expectation or relationship can be ignored by any project manager (Young 2000) or other stakeholders. It pays to identify the stakeholders early enough in a project. It pays to carry stakeholders along in a project life cycle. Stakeholders have tremendous powers (political, technical, communication, propaganda etc) and stakeholders can be positive, neutral or negative about a project deliverables and outcome. According to Young (2000) the two most important stakeholders are the project sponsor and the customer. Some experts have identified the project sponsor and project manager as the two most important stakeholders (Ahmed 2012), Mueller and Turner (2002), Dewing (2016), Chandler and Thomas (2015).

Many experts are emphasizing the powers and components of project sponsor and project manager relationship experts in project management are interested in the multiple relationship between the institution that pays for the project and another institution that executives and delivers the benefits of a project (Mueller and Turner 2002), Young (2009), Ahmed (2012). The project sponsor decides on the scope, schedule time, budget and takes big and strategic relating to a project. The project manager organizes work or tasks shifts, motivates project team members, accept the project sponsors decision on project scope, schedules, budget, direction. The project manager commits to deliver the project benefits as well as perceived benefits. Experts are agreed that based on this two-way vertical relationship, the project manager is advised to disclose all project issues to the project sponsor.

According to Ahmed (2012) "report Red and Red" Experts in Stakeholder Relationship in project management are agreed on the components of the relationship between project sponsor and project manager. These components are regular and **frank discussion mutual agreement** on project issues, two-way trust, building bonds and mutual confidence, supportive assistance from the project sponsor to the project manager, mutual respect, consensus on the outline of reporting structure, communication procedures, ground rules, report format and report contents and the procedure for escalating issues. On the part of the project manager there should be sincere loyalty, commitment to the expectation of the project sponsor. For both project sponsor and manager there should be regular talking, listening, contacts, project meetings, decision-making, negotiated ground rules, access to project sponsor, negotiated areas of what matters most-quality, cost, time mutual respect, collaboration and cooperation, issues escalation, delegation of authority, boundaries of decision-making and resources accountability.

These micro acts of relationships between project sponsor and project manager lead to macro acts or manifestations of relations such as collaborative, supportive, cooperative, positive relationship between project sponsor and project manager. The inverse of the collaborative, supportive and cooperative relationship is non

collaborative. The experts on the relationship among frontline stakeholders have remained silent on the change in the collaborative relationship in the event of project cost-time overruns. Does the project sponsor withdraw his supportive roles, listening roles? Does the project sponsor terminate the working contract relationship? According to Seppala (2015) positive team relationship is more productive in project management. Young (2009) argues that building positive relationships in project management is the ideal. Mueller and Turner (2002) emphasizes the need for positive-win-win relationship by comparing the project sponsor and project manager relationship like that of buyer-seller relationship where a partnership relationship level is more mutually beneficial to both parties than the cash-and-carry relationship.

Project cost-time overruns are negative issues for both the project sponsor and the project manager. Can such negative project management issue allow the project sponsor and project manager relationship remain constant and indifferent? The simple logic will assume that there will some shift in relationship from the expected positive-collaborative to negative – non collaborative relationship marked by blame game, disputes, blocking of further involvement on the part of project sponsor, escalation of project cost-time overruns, litigations, termination of all contractual relationship (Ghahabo and Ajuwon, 2017), Ahiaga-Dagbui et al (2015), Ahiaga-Dagbui and Smith (2014), Lowstedt Raisanen and Leiringer (2018). From the foregoing it can be stated that project cost-time overruns cannot alone distort the positive relationship between the project sponsor and project manager. This is because there are many forces that affect project cost-time variables (Polat, Okay and Ekini, 2014).

Frimpong, Oluwoye and Crawford (2003), Fugar and Agyakwah-Baah (2010). Uncontrollable natural disasters affecting project cost-time overruns need not create negative relationship between project sponsor and project manager. Project cost-time overrun caused by other stakeholders like communities, supplier litigations court of law injunctions (Akin, 2015) Strict applications of the positive relationship drivers (Dewing, 2015), Ahmed (2012), Young (2000) Barker and Cole (2007) will prevent any toxic relationship between project sponsor and project manager. It is rather the non-compliance with the batteries of positive relationship between the project sponsor and project manager that can create toxic or negative project and stakeholder relationship. Project cost-time overruns alone cannot create negative PS and PM relationship.

Empirical Review

Dewing (2015) studied a panel of senior project sponsor on the relationship between project sponsors and project managers. The findings showed that the project sponsors identified the significant roles and responsibilities of project sponsors throughout the life-cycle. Project sponsors are the leaders of the business face of a project. Project sponsors must agree on the rules of engagement with the project manager. The project sponsor should centralize various aspects of a project with the project manager. These are project governance, project process, project issue escalation procedures,

boundaries of decision-making powers. At the execution level or stage of a project sponsor needs to provide support, cooperation, team spirit, winning mentality. At the project close or sign-off, the project sponsor needs to provide accountability for project benefits delivery. Negotiation bargaining and compromise must spice every move in stakeholder relationship. Negotiate what matters most to the project sponsor (is it quality, cost, time, flexibility, change control, project managers access to project sponsor, project status updates, keeping the project sponsor in the loop, project sponsor-project manager consultations, meetings, discussions). At these must be negotiated.

Dewing (2015) study concluded that project sponsor relationship with project manager is real and a powerful force in project success. The general relationship envisaged is positive cooperative, collaborative, supportive relationship. The action draws of that positive and cooperative, mutualism is many and varied. Sincere compliance or application of these driver-relationship is vital force in project success.

Akin (2015) studied the relationship among the various stakeholders of a Dam project in Zungeru. The project stakeholder were the communities on which the Dam was constructed, the project sponsor (Federal Government of Nigeria) and the project manager (CNEEC-SINO Hydro Company, Estate Studyors and Values). The study revealed the following project relationship - Non-payment of compensation to communities affected by the construction of the hydro-electricity Dam, Outrage by the Communities, litigation by the Communities, Federal Government of Nigeria was ordered by the court to pay compensation to the communities, Court injunction which has been disregarded by the project manager, project manager used the military force to harass the citizens of the communities. Apparent project sponsor and project manager collusion to spite the feeling of the communities in all, the relationship is **toxic and moving to escalation** of protests on the streets, citizens' arrests, project shut down, project cost-time overruns.

Gbahabo and Ajuwon (2017) studied the economic impact of project cost-schedule delays on infrastructure procurement in developing countries like the Sub-Saharan African Countries. The study used information from policy documents, study reports, peer reviewed articles professional observation. The findings show that productive inefficiencies of scarce resources further delays, contractual dispute, stakeholder claims and litigation, project failure, total project abandonment negative public perception and suspicion of corruption, inefficiency, incompetence nepotism and unpatriotic. The study concluded that project cost-time overruns have high prices and **sacrifices** capable of undermining project success. The study recommends that project sponsors, project managers should be given project management capacity building (Training and Development) Project sponsors and project managers should apply innovative project cost and time control tools such as reference class forecasting Public-Private Partnership (PPP) project models, computer aided cost estimation, data mining etc.

Gbahabo and Ajuwon (2017) studied the effect of project cost-time overrun on Ajaokuta Steel Complex in Kogi State of Nigeria. The Steel Complex was estimated to create 6000 jobs direct jobs and over 1 million jobs indirectly. According to Gbahabo and Ajuwon (2017), Mold (2012) Ajaokuta Steel Complex Project experienced over USD 9 Billion Cost overrun and over 20 years' delay. Ajaokuta Steel Complex was abandoned to this day. There were so many workforce claims, litigation, disputes. The project sponsor and project managers felt distrustful of each other to this day.

Gbahabo and Ajuwon (2017) investigate the Nigerian Abandoned Project Audit Report of 2011. The results revealed that 11,885 Federal projects were abandoned across Nigeria over a period of 40 years. Such project abandoned was traceable to project cost and time overruns.

The study concluded that the incidence of project cost overrun and time overrun can hardly be avoided in any country and any economy. Project cost-time overrun, whether in the public or private sector have toxic project stake holder relationship such as suspicion of corruption, in competence, waste of resources erosion of leadership trust and followership.

Morgan, Levitt and Malek (2007) studied the stakeholders' relationship in the implementation of Oracle Project at Stanford University. The stakeholders were project sponsors, multiple project beneficiaries and project managers. Some of the multiple beneficiaries expected various controls to be added to the project outcome, while the pursuit of such needs benefited some, it created delays (time overruns to some groups of outcome beneficiaries). The study found out that there arose conflicts, project cost-time overruns, unhappy stakeholders, frustrated project managers countless meeting time to work out alternative solutions. There was logjam relationship, unhappy argumentative stakeholder relationship. The study concluded that project stakeholder relationship force is a fragile one because it involves people and their needs, perceptions. Project stakeholder relationship is as forceful as project cost, project time and project quality. The study recommends that continuous consultation between project sponsor and project manager is key relationship. There is need for the PS and PM to work together to make collaborative management decisions. Flexible and adaptive relationship between project sponsor and project manager is highly recommended.

Methodology

This study is a study type. It is designed to use pen-and -paper questionnaire to collect data from sample sampled population. The responses collected from the sampled population were processed in to data for analysis. This study is situated in Lagos metropolis, which is financial, population, industrial and commercial nerve center of Nigeria. Indeed, Lagos metropolis has over 20 million people. It is the most populated city in the ECOWAS region and indeed in Africa. Lagos metropolis is the infrastructure center in Nigeria. This makes Lagos metropolis the home of

construction projects in Nigeria. All the major national and international project construction companies in Nigeria have offices in Lagos metropolis.

MTN a telecommunication company has head office in Lagos metropolis. Telecommunication Tower construction is a big business because of the high competition to serve the 20 million telecommunication services in Lagos. Apart from the local government and local councils structure of political governance of Lagos metropolis, there well known territorial zones in Lagos. These are Victoria Island, Ikoyi, Yaba, Gbagada-Bariga-Oworonsoki, Surulere, Oshodi-Isolo Ikeja, Ikorodu, Ketu, Ibeju, Festac town etc. These zones and communities host many MTN telecommunication towers. MTN is the project sponsor of the telecommunication Towers while contractors are the project managers.

Two main sources of data were adopted in this study. These were primary and secondary data. This consisted of the responses collected from sample sampled population. Such responses were processed into data for analysis.

This consisted of data and information derived from review of existing works such as books, journal articles, magazines, newspaper articles and unpublished dissertation or thesis.

The population of the study was the employees of MTN, Lagos metropolis. The population was drawn from many operational units such as procurement, finance, operations, customer service, facilities, Human resources, marketing, External relation. Table 1 shows the distribution of the population of the study.

Table 1. Distribution of the population

Unit	Number	%
Procurement	30	18.0
Finance/ Assets	18	10.0
Technical Operations	48	28.0
Customer Service	20	12.0
Facilities	15	9.0
HR	20	12.0
Corporate Affairs/External Affairs	19	11.0
Total	170	100.0

Source: Field Study 2016.

The population of this study is a finite one (170). This permitted the application of Yamane (1964) Onwe (1998), Asika (1991), Osuala (1993) model for determining sample size of a finite population. This model states that

$$n = \frac{N}{1 + N(e)^2}$$

Where: n = Required sample size, N = Finite population (170), Z = Statistical constant
 e = Maximum level of error at 5%. Therefore:

$$n = \frac{170}{1 + 170(0.05)^2} = n = \frac{170}{1 + 0.425} = n = \frac{170}{1.425} = n = 119 \text{ (Sample Size)}$$

This sample size was re-distributed according to the proportion contribution of each participating unit. Table 2 demonstrated this process of proportional stratification.

Table 2. Distribution of Sample Size

Unit	Number	%	Proportional Stratification
Procurement	30	18.0	$0.18 \times 119 = 21$
Fin/ Accts	18	10.0	$0.1 \times 119 = 12$
Technical OPS	48	28.0	$0.28 \times 119 = 33$
Customer Service	20	12.0	$0.12 \times 119 = 14$
Facilities	15	9.0	$0.09 \times 119 = 11$
HR	20	12.0	$0.12 \times 119 = 14$
Corporate affairs/ External Affairs	19	11.0	$0.11 \times 119 = 13$
Total	170	100.0	118

Source: Field Study 2016

Table 2 demonstrated number of sampled population that participated in the study. The instrument for data collection was a structured questionnaire which was organized in sections. The instruments contained the semantic propositions which carry the research variable proxies. A scoring instrument was provided in the form of SA= Strongly Agreed, () A= Agreed () D= Disagreed (), SD= Strongly Disagreed ()

The researcher personally executed the administration of the questionnaire. The assistance of unit heads was also helpful in accessing individual sampled population. The administration plan was to complete and collect the questionnaire on site. This worked for 60% of the 118 sampled population. The rest 40% requested for delayed response and collection. This was granted within a two-week period.

Two strategies were adopted to validate the instrument. The first strategy involved the submission of the draft instrument to a subject and research expert (Onwe 1998). The subject and research expert chosen was the researcher's dissertation supervisor. The supervisor vetted the format, content and language of the instrument. Some propositions were expunged to enhance the effectiveness of the instrument. The second strategy for validating the instrument consisted in mock administration of the instrument to ten telecommunication company employees who were excluded from the sample sampled population. Their responses indicated 100% instrument return

rate and 100% instrument completion rate. These members were interpreted as respondent's interest in the contents of the instrument. The results of the mock instrument administration demonstrated respondent's strong comprehension of the contents of the questionnaire. It was concluded that the questionnaire's message was correctly conveyed.

The instrument's validity metrics of 100% return rate and 100% content comprehension were used to confirm the reliability of the instrument. However, another round of mock administration was carried out with another telecommunication company. The results showed 100% instrument return rate and 98.0% content comprehension. These matrices confirmed that the instrument would yield high score even if they were administered ten times to ten different sampled populations.

Two methods of data analysis were adopted in this study. One of the methods consisted of processing the responses to generate data. The data were displayed in %ages and commented tables. The second method of data analysis consisted of test of hypotheses using χ^2 (chi-square) statistical tool. For example:

$$\chi^2 = \sum \left(\frac{f_o - f_e}{f_e} \right)$$

Where: χ^2 = Statistical table for χ^2 , \sum = Summation code, F_o = Observed frequencies, F_e = expected frequencies.

Decision Rule: If χ^2 calculated is $\geq \chi^2$ table reading then reject H_0 (null hypothesis) and accept H_1 (alternate hypothesis).

Analysis, Findings and Discussion

Table 3: Analysis of Questionnaire Return Rate by units participating in the study

Unit	Questionnaire Administered	Questionnaire Returned	% Return
Procurement	21	11	52.0
Fin/ Accts	12	10	83.0
Technical Ops	33	20	61.0
Customer Service	14	9	64.0
Facilities	11	7	64.0
HR	14	10	71.0
Corporate Affairs	13	9	69.0

Source: Field Study 2016.

Table 3 Revealed that all the participating units returned their instrument above 50%.
Table 4Personal Data

Proposition	Responses	Number	%
1. Age of Sampled population	27-37 years	26	34.0
	38-48 years	36	48.0
	49-59 years	10	13.0
	60 years plus	4	5.0
	Total	76	100.0
2. Gender	Male	60	79.0
	Female	16	21.0
	Total	76	100.0
3. Marital Status	Married	50	66.0
	Single	26	34.0
	Total	76	100.0
4. Educational Status	Less OND	10	13.0
	OND	15	20.0
	BSC/HND	30	40.0
	BSC/HND Plus	21	27.0
	Total	76	100.0

Source: Field Study 2016

Table 4 demonstrated the following data 62(82.0%) of the sampled population are between the age 27-48 years., -60(79.0%) are made, -50(66.0%) are married, -66(87.0 %) hold OND and BSc/HND Plus, or OND= 15(20.0%), BSc/HND = 30(40%) and BSC/HND plus = 21(27.0%) of the sampled population.

Table 5: Relationship between Telecom Tower Project Cost Overrun (TTPCO) and increase in MTN-Contractor Mutual Supportive Actions.

Proposition	Responses	Number	%
5. Telecom Tower Project Cost need not destroy project sponsor-project manager mutual supportive action	SA	20	26.0
	A	30	40.0
	D	20	26.0
	SD	6	8.0
	Total	76	100.0
6.Management more concerned about total project manager relationship than only Telecom Tower cost Overrun	SA	50	66.0
	A	26	34.0
	D	—	—
	SD	—	—
	Total	76	100.0
7.Telecom Tower Project Cost Overrun Scarcely create non supportive	SA	20	40.0
	A	20	26.0

relationship between project sponsor and project manager	D	26	34.0
	SD	—	—
8. Existence of standing policy that Telecom project cost overrun is enough and sufficient consideration to cancel mutual supportive relationship between MTN and project Contractor	Total	76	100.0
	SA	60	79.0
	A	—	—
	D	10	13.0
	SD	6	8.0
	Total	76	100.0

Source: Field Study 2016.

Table 5 demonstrated that an average 78.0% of those studied agreed that there is relationship between Telecom Tower Project cost overrun and increase in Project sponsor-project manager mutual supportive Actions.

Table 6: Relationship Between Telecom Tower Project Time Overrun (TTPTO) and increase in MTN- project manager Collaborative-partnership Relationship.

Propositions	Responses	Number	%
9. Telecom Tower Project time overrun can be fixed and cannot be allowed to destroy project sponsor-project manager collaborative-partnership actions.	SA	48	63.0
	A	10	13.0
	D	10	13.0
	SD	8	11.0
	Total	76	100.0
10. MTN values more the full range of project sponsor-project manager collaborative-partnership relationship than solo project time overrun	SA	50	66.0
	A	20	26.0
	D	—	—
	SD	6	8.0
	Total	76	100.0
11. Not common practice to allow single factor of project time overrun in Telecom Project to tarnish MTN-project Contractor/ Manager collaborative-partnership relationship.	SA	30	40.0
	A	40	52.0
	D	6	8.0
	SD	—	—
	Total	76	100.0
	SA	20	26.0

12.Existence of standing policy that Telecom Project Time Overrun alone is not enough consideration to withdraw MTN-project manager collaborative-partnership relationship	A	30	40.0
	D	26	34.0
	SD		
	Total	76	100

Source: Field Study 2016.

Table 6 showed that an average of 82.0% of the agreed that there is relationship between Telecom Tower Project Time Overrun (TTPTO) and increase in MTN collaborative-partnership relationship with the Telecom Tower Project Manager.

Data Analysis

This section analyses the data presented in section 4.1 above. The method of data analysis was test of hypothesis using the tool of χ^2 (Ch-square).

H_0 1: There is no significant relationship between Telecom Tower Project Cost Overrun (TTPCO) and increase in MTN- project manager (Contractor) mutual supportive Actions(relationship).

Table 7: Propositions capturing H_0 (1)

Propositions capturing H_0	Agree	Disagree	Total
Proposition 5	50	26	76
Proposition 6	76	0	76
Proposition 7	50	26	76
Proposition 8	60	16	76
Total	236	68	304

Calculation of cell values for agree:

$$\frac{234 \times 76}{304} = 58.5, \quad \frac{234 \times 76}{304} = 58.5, \quad \frac{234 \times 76}{304} = 58.5, \quad \frac{234 \times 76}{304} = 58.5$$

Calculation of cell values for disagree

$$\frac{68 \times 76}{304} = 17, \quad \frac{68 \times 76}{304} = 17, \quad \frac{68 \times 76}{304} = 17, \quad \frac{68 \times 76}{304} = 17$$

Table 8: Table of Contingence (1)

Observed F (O)	Expected F (E)	O-E	(O-E) ²	$\frac{(O-E)^2}{E}$
50	58.5	8	64	1.1
76	58.5	17.5	306.3	5.2
50	58.5	8	64	1.1
60	58.5	1.5	2.3	0.0
26	17.0	9	81	4.8

0	17.0	17.0	289.0	17.0
26	17.0	9	81	4.8
16	17.0	1	1	0.0

$$\chi^2 \text{ Calculated} = 34.0$$

Decision Rule (1)

If χ^2 calculated (34.0) is $\geq \chi^2$ table reading, then reject H_0 (null hypothesis) and accept H_i (alternate) χ^2 calculated (34.0) is $> \chi^2$ (5.991).

The study accepts H_i (i.e.), there is significant relationship between Telecommunication Tower Project Cost Overrun (TTPCO) and increase in MTN-project manager mutual supportive relationship.

H_0 2: There is no significant relationship between Telecom Tower project Time Overrun (TTPTO) and increase in MTN-project manager collaborative partnership (MTN-PMCPA)

Table 9: Proposition capturing H_0 (2)

Proposition capturing H_0	Agree	Disagree	Total
Proposition 9	58	18	76
Proposition 10	70	6	76
Proposition 11	70	6	76
Proposition 12	50	26	76
Total	248	56	304

Calculation of cell values

$$\frac{248 \times 76}{304} = 62, \quad \frac{248 \times 76}{304} = 62, \quad \frac{248 \times 76}{304} = 62, \quad \frac{248 \times 76}{304} = 62$$

Calculation of cell values for Disagree

$$\frac{50 \times 76}{304} = 14, \quad \frac{50 \times 76}{304} = 14, \quad \frac{50 \times 76}{304} = 14, \quad \frac{50 \times 76}{304} = 14$$

Table 10: Table of Contingence (2)

Observed F (O)	Expected F (E)	O-E	(O-E) ²	$\frac{(O-E)^2}{E}$
58	62	4	16	0.3
70	62	8	64	1.0
70	62	8	64	1.0
50	62	12	144	2.3
18	14	14	16	1.2
6	14	8	64	4.6

6	14	8	64	4.6
26	14	12	144	10.3

X^2 calculated = 25.3

Decision Rule (2)

If X^2 calculated (25.3) is $\geq X^2$ table, then reject H_0 (null) and accept H_1 (alternate).

X^2 cal. (25.3) is $\geq X^2$ (5.991) we accept H_1 ie there is Significant Relationship between Telecom Tower Project Time Overrun (TTPTO) and increase in MTN-Project Manager Collaborative-Partnership (Mtn-PMCP).

Findings, Conclusion and Recommendations

Findings

The following findings were made:

1. There is significant relationship between Telecommunication Tower Project Cost Overrun and increase in project sponsor (MTN) and project manager(contractor) in MTN, in Lagos metropolis (78.0%, $x^2 = 34.0$, $n=76$, $p<0.05$).
2. There is significant relationship between Telecom Tower project Time Overrun and increase in project sponsor (MTN) and project Manager (Contractor) Collaborative-partnership relationship. (82.0%, $x^2 = 25.3.0$, $n=76$, $p <0.05$).

Conclusion

The study confirmed that the variables cost overrun and time overrun are significantly and positively related with the variable proxies of project sponsor and project manager relationship. It is concluded that the effect of Telecom Tower Project cost time overruns on project sponsor and project manager relationship is positive. In other words, Telecom Tower project cost-time overruns are insensitive to the positive project Sponsor-Project manager relationship in MTN, Lagos metropolis. This might be as a result of the mediating effects or force of multiple project sponsor-project manager relationship building forces which neutralized or overpowered project cost-time overruns.

Recommendations

The following recommendations were made:

- i. Project sponsor (MTN) should not measure the health of its project relationship with its project managers with Telecom Tower project cost-time overruns.
- ii. Project Managers(contractors) should emphasize project sponsor supportive, collaborative and partnership relationship more sensitive and value than project cost-time overruns

- iii. Both Telecom Tower project sponsors and managers should take project sponsor and Project manager relationship beyond Project cost-time overrun and into multiple project moves or actions that drive positive relationship.
- iv. Project sponsors should not rupture their relationship with project managers because of project cost-time overrun. There are multitude of forces that can corporate for project cost-time overruns in Telecom Tower projects.

Further study is needed to examine the mix of project sponsor-project manager relationship that tends to neutralize the effects of project cost-time overruns. Second, further study is needed to examine the mediating effects of Project sponsor-manager positive relationship building bundles such as open transparent sincere project process or behavior reporting to project sponsor. According to Polat, Okay, and Ekin "reporting red as red" Other mediating forces are responsible loyalty, mutual aspect and integrity, clear definition of responsibilities, mutual and continuous resources accountability.

References

- Abdulelah, A., Ahiaga-Dagbui, D., and Moore, D. (2017). Construction Project Cost Overrun: What Does Literature Tell us? *International Journal of Innovation, Management and Technology*, April. 8 (2): 334-345.
- Allahaim, F.S., and LIU, L. (2015). Causes of Cost Overruns in Infrastructure Projects in Saudi Arabia, *International Journal of Collaborative Enterprise*, 5 (1 - 2): 32 - 57.
- Alinaitwe, H. Apolot, R. and Tindiwensi, D. (2013) Investigation into the Causes of Delays and Cost Overruns in Uganda's Public Sector Construction Projects, *Journal of Construction in Developing Countries*, 8 (2): 33 - 58.
- Ahiaga-Dagbui et al. (2015) Spotlight on Construction Cost Overrun Research Superficial, Explicative and Stagnated
- Ahiaga-Dagbui, D.D. and Smith, S.D. (2014). Rethinking Construction Cost Overruns: Cognition, Learning and Escalation. *Journal of Financial Management*, 20 (8): 593 - 599.
- Ahmed, S. (2012). Working with Project Sponsor, *Project Management in Practice*, March 11.
- Ameh, J.O., and Osegbo, E.E. (2011). Study of Relationship Between Time Overrun and Productivity on Construction Sites. *International Journal of Construction Supply Chain Management* 8 (1): 456-466.
- Akin, A. (2015). Dam Project Sparks Outrage in Zungeru, *Daily Sun* Mon, July 13, pp.29 - 30.
- Barker, S. and Cole, R. (2007). *Brilliant Project Management: What the Best Project Managers Know, Say and Do*, London, Pearson - Prentice Hall Business.
- Buys, F. (2015). Cost Overrun and their Mitigation Measures, *QS Quote*, September 6.
- Chandler, A., and Thomas, P. (2015). The Role of Project Sponsor in Project Management, *Project Management Institute (PMI)* February, 20.
- Choudhury, I., and Rajan, S.S. (2003). Time-Cost Relationship for Residential Construction in Texas *Construction Information Digital Library*.
- Dewing, L. (2016). Exploring the Role of Project Sponsor. *The Project Manager*, February 9th.
- Durdyev, S., Ismail, S., and Bakar, N.A. (2012). Factors Causing Cost Overruns in the Construction of Residential Projects: Case study of Turkey, *International Journal of Science and Management*, 1 (1): 3 - 12.

- Elinwa, A.U. and Buba, S.A (1993). Construction Cost Factors in Nigerian Construction Industry, *Journal of Construction Engineering and Management*, 199 (4): 698 - 713.
- Elinwa, A.U and Joshua, M. (2001). Time-overrun factors in Nigeria's Construction Industry, *Journal of Construction Engineering and Management*, 127 (5): 419 - 425.
- Francesco, D., Maddaloni and Dans, K. (2018). Project Managers' Perception of the Local Communities' stakeholders in Mega Projects: An Empirical Investigation in the UK, *International Journal of Project Management*, April.
- Franpong, Y., Oluwoye, P.O., and Crawford, L. (2003) Causes of Delays and Cost Overruns in Construction of Underground Water Projects in Developing Countries, Ghana as a case study, *International Journal of Project Management*, 21 (3): 321 - 326.
- Fugar, F.D.K and Agyakwah-Baah, A.B. (2010). Delays in Building Construction Projects in Ghana, *Australian Journal of Construction Economics and Building* 10 (1-2) 103 - 115.
- Gbahabo, T.P. and Ajuwon, S.O. (2017). Effects of Project Cost Overruns and Schedule Delays in Sub-Saharan Africa, *European Journal of Interdisciplinary Studies*, Jan - April. 7 (2): 664-273.
- Gringberg, D., and Hirschman, E.C. (1986). Multiple Orientations for the Conduct of Marketing Research: An analysis of the Academic Versus Practitioners Distinctions, October. *Journal of Marketing* 50 (13): 200-211,.
- HBR Staff (2016). Five Critical Roles in Project Management Harvard Business Review.
- Jiang, J.J. Klein, G., Tsai, A.C.J., and LI, Y. (2018). Managing Multiple Supplier Project Teams in New Software Development, *International Journal of Project Management*, October. 22 (9): 110-119.
- Kaplan, A. (1964). *The Conduct of Inquiry*, Sam Francisco, Chandler Press.
- Meng, X., and Boyd, P. (2017). The Role of the Project Manager in Relationship Management, July. *International Journal of Project Management*, 35 (5): 717 - 728.
- Mold, A. (2012). Will it All End in Tears? Infrastructure Spending and African Development in Historical Perspective, *Journal of International Development* 24, (2): 237 - 254.
- Muller, R., and Turner, R.J. (2002). Communication IT Project Manager and P.S in a buyer - seller Relationship, Paper presented at PM Research Conf. 2002: Frontiers of PM Research and Application, Seattle, Washington, Newton Square, PA: PMI.

- Morgan, M., Levitt, E.R., and Malek, W. (2007). *Executing Your Strategy: How to break it down and get it done* Boston, Harvard Business School Press.
- Nachimais, D., and Nachimais, C. (1978). *Research Methodology in the Social Sciences*, New York, Irwin.
- Koushaki, P.A., AL-Rashid, K., and Kartame, N. (2015). Delays and Cost Increases in the Construction of Private Residential Projects in Kuwait, *Journal of Construction Management and Economics*, 23(1): 285 - 294.
- Lawstedt, M., Raisanen, C., and Leiringer, R. (2018). Doing Strategy in Project-Based Organization Actor and Patterns of Action, *International Journal of Project Management*, August. 31 (9): 201-212.
- Okuwoga, A.A. (1998). Cost-time Performance of Public Sector Housing Projects in Nigeria *Journal of Habitat International*, 22 (4): 389 - 395.
- Polat, G., Okay, F., and Ekin, E. (2014). Factors Affecting Cost Overruns in Micro-Scaled Construction Companies, *Procedia Engineering*.85 (13): 428 - 435.
- Rezvani, A., Khosravi, P., and Ashkanasy, M.N. (2018). Examining the Interdependencies among Emotional Intelligence, trust and performance in Infrastructure Projects: A multi-level study, *International Journal of Project Management*, Nov. 505 (23): 1231-1240.
- Seppala, E. (2015). Positive Teams are more Productive, HBR. March.
- Wen, Q., Quiang, M., and Gloor, P. (2018). Speeding up Decision-making in Project Environment: The Effects of Decision Makers Collaborative Network Dynamics, *International Journal of Project Management*, July. 44 (17): 996-107.
- Young, L.M. (2009). Building Relationships in Project Management, Project Smart, March 2.
- Young, F.T. (2000). *Successful Project Management*, London, Kogan Page.
- Zhang, S., Fu, Y., and Kang, F. (2018). How to Foster Contractors' Cooperative Behaviour in the Chinese Construction Industry: Direct and Interaction Effects of Power and Contract, *International Journal of Project Management*, October. 44 (17): 1221-1230.