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Factors affecting the choice of Project Scope Management Practices among Telecommunication Organizations

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ABSTRACT

This study identified, categorized project scope management practices employed telecommunication organization in the implementation of Information and Communication Technology (ICT) projects. The study examined the factors influencing the choice of scope management practices on ICT projects implementation among telecommunication organizations in Nigeria. The study was carried out with the use of primary data source which were obtained through the use of questionnaire and interview schedule to a total of one hundred and twenty five (125) project sponsors, one hundred and twenty five (125) project managers/coordinators and one hundred and twenty five project team members on ICT projects implemented by telecommunication organizations in Nigeria. This was used to elicit information on the factors influencing the choice of project scope management practices among telecommunication organizations in implementing ICT projects. Data collected were analyzed using both descriptive and inferential statistics. The study revealed the major adopted factors influencing the choice of project scope management practices among telecommunication organizations in implementing ICT projects were Competitive Advantage, Organizational Process Assets, Expert Judgment, Complex Activity List, Complex Project Scope Statement, Limited Resources, Fast Tracking, Project Delays, Client Demand, Technical Skills Required, Dynamism of Technology and Return on Investment. All of these factors had a mean rank of 3.50 and above on a 5 point-likert scale. Four of these factors were identified to be major factors influencing the choice of project scope management practices employed by telecommunication organizations implementing ICT projects. These include Competitive Advantage (58.5%), Complex Project Scope Statement (85.8%), Client's Demand (60.9%) and Return on Investment (52.5%). Correlation analysis revealed that Organizational process assets ($r = .448^{**}$: $p<0.05$), Expert Judgment ($r = .261^{**}$: $p<0.05$), Complex project scope statement ($r = .260^{**}$: $p<0.05$), Limited resources ($r = -.425^{**}$: $p<0.05$), Client's demand ($r = .533^{**}$: $p<0.05$), and Returns on investment ($r = .309^{**}$: $p<0.05$) were shown to have a significant relationship with the choice of project scope management practices employed by the organizations. In conclusion, the study revealed that Organizational process assets, Expert judgment, Complex project scope statement, Limited resources, client's demand and Return on Investment are factors that significantly influence the choice of project scope management practices in the telecommunication organizations.

Keywords : Projects Scope Management, Project Delivery Success, Telecomunications, Organizations, Monitoring and Controlling Phases.

I. INTRODUCTION

As business needs change, Information and Communication Technology (ICT) develops in line with these changes especially in the present age of increased awareness and need. Organizations that maximize the use of new technologies found themselves dealing with projects that are difficult and expensive to implement (Ojiako et al., 2005). These projects are however embarked upon in order to meet up with several requirements. These include: contributing to organizations strategic plan, (its mission, goals and objectives), meeting up with executive sponsor requirements, technological advancement, legal requirements, commercial goals, political concerns, Governme

nt regulations, Nation building among others.

However, in order to ensure that these projects are implemented and delivered to the expectations of stakeholders, project management is embraced, especially in telecommunication industry, to proactively manage these projects such that the expected outcomes (products or services) will fulfill the purpose upon which they are embarked upon. Embracing project management to manage projects go a long way in improving upon project delivery success especially among ICT projects implemented by telecommunication organizations. However, the application of project management to manage projects are also governed by the methodologies applied but the objective remains the same, that is, improve upon project success and meet up with set project objective, goal and success criteria.

Several organizations face challenges in implementing these projects to desired expectations and these challenges do stem from improper gathering, interpretation and documentation of requirements and defining the boundary (scope) needed to fulfill project objectives. Significant efforts have been made in the identification, application and management of procedures, practices, processes, standards and methodologies towards ensuring that project requirements and scope are properly analyzed and documented to aid project delivery and success (Pmbok, 2013).

Project scope management is applied basically to aid the management of projects to success including ICT projects embarked upon by Telecommunication organizations. It involves all the practices that will aid in ensuring that all the work and only the work that are required are done on the project work. Project scope management involves planning, gathering requirements, creation of work breakdown structure, verifying and controlling project scope (Pmbok, 2013). It is noteworthy that organizations decide on the choice of project scope management practices that they will embark upon and several factors can be responsible for the choice of project scope management practices they will employ in implementing projects. These factors can combine to influence the choice of practices the organization will employ to manage projects individually or translate to organization standards for managing all projects. The primary objective of organizations is achieving project success and reducing failures especially in a competitive environment. With the increasing competition and dynamism in the ICT industry and also the need to improve upon cost savings and maximize profits, effective project scope management is the most important factor that affects project success or failure (Avison and Torkzadeh, 2009).

II. METHODS AND MATERIAL

A. Literature Review

Information and Communication Technology (ICT) is technology that supports activities involving the creation, storage, manipulation and communication of information, together with the related methods, management and application. In other words, Information Technology enables the easy way to record, store, process, retrieve, and transmit information(Robert and Gavin Murphy, 2010).It encompasses modern technologies such as computers, telecommunications, facsimile and microelectronics. Older technologies such as document filling systems, mechanical accounting machines, printing and cave drawings are also included in the term Information Technology. Emerging trends in socio-economic growth shows a high premium being placed on information and communication technology (ICT) by homes, organizations, and nations. This is fast making the world to become a global village and the necessary tool for this process is communication of which telecommunication is a key player. Projects implementation in the telecommunications sector all over the world is very rapid as one innovation replaces another in a matter of weeks (Ajiboye *et al*., 2007). Communication without doubt is a major driver of any economy. This introduction has brought about a revolution in the telecommunication sector services worldwide.

Investments in ICT projects and training by telecommunication organizations have not totally led to massive gains in corporate productivity and ultimately improvement upon nations gross domestic product (GDP).The delivery of ICT projects among telecommunication organizations specifically, is failing to meet business and user needs due to factors such as poorly defined scope, cost and time overruns, inadequate quality and meeting up with expected features and functions to satisfy project stakeholders (CIO Magazine, 2001). Chaos manifesto, 2012 revealed that 39% of all projects (ICT projects inclusive) implemented in 2013 were successful (delivered to time, on budget and with required features and functions), 43% were challenged (late, over budget with unsatisfactory required features and functions) and 18% failed (cancelled prior completion or delivered and never used). However, an increase in project success was observed over the

years and this was as a result of several factors such as methods, skills, costs, tools. Decisions, internal and external influences, team bonding, technology and paramount amongst these is the increased awareness and introduction of project management especially in the various stage of project implementation including project scope management practices needed for ICT projects implementation (Heeks, 2002).

The introduction of project management into managing ICT projects comes with diverse methodologies. Project management methodologies specify the best way to initiate, plan, execute, control and deploy projects to achieve set objectives including customer satisfaction. There are several methodologies and the most suitable for projects implementation are determined by considerations such as the industry, sector or project type. Whichever methodology is considered or selected, they all also describe the approach for project scope management practices that can be employed to accomplish project objectives. Some of the methodologies in place includes; Waterfall, Agile, critical chain, critical path, scrum, PRINCE2, Project Management Institute (Varner, 2014). The Project Management Institute (PMI) methodology approaches project by classifying project implementation into process groups (Initiating phase, Planning phase, Executing phase, Monitoring and Controlling phase and Closing phase), knowledge areas and processes. Project scope management is a knowledge area that has plan scope, collect requirements, define scope, create work breakdown structure (WBS), verify scope and control scope as it processes (PMBOK, 2013). These processes are the practices employed in project scope management of projects including ICT projects implementation by telecommunication organizations.

Project scope management includes all those practices that are necessary to ensure that the project is streamlined to only the required necessary work in order to achieve a necessary product, service or result. Scope means what is needed to be done and scope management is the managing of what needs to be done (Wysocki, 2009). A well defined project scope is important for effective allocation of resources, plan expenditures, save time and energy by eliminating and or reducing features that have little value to project objectives. However, the process of defining scope can result in problems of the extreme if not well managed. Project definitions that are too broad may lead a team into a morass of connecting issues and associated problems beyond the team's resources. Project scopes that are set too narrow could restrict teams from finding root causes. The tendency is to err on the side of making the scope too broad rather than too narrow (Mulcahy, 2009).

According to the PMI methodology, project scope management constitute the processes needed to ensure that the project includes all of the work required and only the work required to complete the project implementation successfully (Pmbok, 2013). There are are five fundamental practices relating to project scope management (Heldman, 2009). These are:

B. Collect Requirements

This is the practice whereby the customers and stakeholders expectation of the project is recorded. The captured information must be elicited and analyzed in concrete detail. Requirement becomes the foundation of the work to be done and serves as a guide to the cost, schedule, the quality and customer satisfaction baseline of the project (Mulcahy, 2009).

C. Define Scope

Define scope is the practice of implementing a detailed documentation and description of the project and product. The product scope describes the features and characteristics of the product, result or service of the project while project scope describes the project work required to create the project deliverables (Heldman, 2009). Project scope definition is primarily concerned with what is and is not included in the project to be implemented. Define scope process usually qualifies major deliverables assumptions and initial constraints documented during the project initiation stage or phase.

D. Create work breakdown structure (WBS)

This is a project scope management practice of subdividing the project goals and deliverables and work to be done into smaller, more manageable units. Creation of the WBS requires the scope statement, requirement documentation and organizational culture, practices and procedures. The method used to breakdown and subdivide task and deliverables into smaller units is known decomposition. The result of this process is the WBS, which effectively divides goals and tasks by setting milestones, cost estimates schedule activities among others (Pmbok, 2013).

E. Verify Scope

Scope verification involves the official acceptance of th e completed project scope by the customer or stakeholde rs (Schwalbe, 2011). This process is involved with form alizing the acceptance of the project deliverables. Revie ws are made with the customer concerning deliverables and the sponsor to en-sure that the scope is in line with t he initial goals of the sponsor. Several documents may b e used to achieve this process including project manage ment plan, requirements documentation and validated d eliverables. The main method of achieving this process i s by review and inspection.

F. Control Scope

This is the process of monitoring and controlling the stat us of the project and product scope. Control is used to m onitor the actual changes as they occur and integrated in to the change control process. Controlling scope is a cha llenge to many ICT projects (Schwalbe, 2007). A reliabl e system must be in place to track, monitor, manage, an d review change to project scope. Controlling scope cha nges must focus on; determining if a scope change is req uired; facilitating scope changes to ensure that changes are agreed upon; and managing the changes if they happ en. Throughout a project life cycle, the need for change will arise from project stakeholders however, it is essent ial for project team members to proactively analyst, revi ew and subject such changes to due approval processes before implementation. This is achieved by having a cha nge control system in place. The change control system, handled by the project steering committee or change co ntrol board, is a process that estimates the impact of the change on project scope and determines if the change wi ll be accepted or rejected (Luckey and Phillips, 2006).

G. Research Methodology

The study covered three states in Southwest Nigeria na mely Lagos, Ogun and Oyo states. These states were ch osen because they are states where we have the largest c oncentration of food and beverage firms among the man ufacturing industries in Nigeria. MAN, (2008) Adopting MAN official classification of the manufacturing indust ry, five sub-sectors serve as bases from which sample w ere drawn. These comprise biscuits and bakery products , confectioneries, dairy products, processed food produc ts, and tea, coffee, and other beverages.

The study covered two states of the Southwest geopoliti cal zone of Nigeria namely Lagos, and Oyo states. Thes e states were chosen because the states have the largest concentrations of the telecommunication headquarters i n Nigeria according to the Nigerian Communication Co mmission (NCC) operator data (NCC, 2013) containing details of all existing telecommunication firms in Nigeri a. Adopting the Nigeria Communications Commission's (NCC) operators' data of 2012, twenty five telecommu nication firms in Nigeria were visited. These consisted o f five (5) Global Systems for Mobile Communications (GSM) firms; four (4) Code Division Multiple Access (C DMA) firms and sixteen (16) fixed/fixed wireless firms. The ultimate goal was to establish the effect of project s cope management practices on projects implemented by telecommunication organizations.

A set of questionnaire was administered on one hundred and twenty five (125) project sponsors, one hundred and twenty five (125) project managers/coordinators, one hundred and twenty five (125) project team members with five (5) projects per organization as the target totaling three hundred and seventy five questionnaires for the effective conduct of this research in Southwestern Nigeria. The questionnaire is used to elicit information on the factors influencing the choice of project scope management practices among telecommunication organizations. These factors include: Competitive advantage, Organizational process assets, Expert judgment, Complex activity list, Complex project scope statement, Limited resources, Fast tracking, Project delays, Client's demand, Technical skill required, Dynamism of technology and Return on investment. The data gathered were treated and subjected to analyses using descriptive and appropriate inferential statistics. Inferential statistics such as correlation, Analysis of Variance (ANOVA) were used to examine the factors influencing the choice of project scope management practices on ICT projects implemented by telecommunication organizations.

III. RESULTS AND DISCUSSION

Investigation of Scope Management Practices Emplo yed on Projects among Telecommunication Firms

Table 1.0 presents the detailed analyses of the scope ma nagement practices employed on projects among teleco mmunication organizations. According to the mean ratin

gs shown in Table 1.0, the major scope management practices employed by the organizations were; Define Project Scope with a mean rank of 4.00; Create Work Breakdown Structure, 4.07; Verify Scope, 3.81 and Control Scope, 3.72. As shown in the table, among the five scope management practices employed, only Collect Requirement with a mean rating of 1.95 was ranked to be very low in use. The reason for this may be the fact that projects are progressively elaborated, the collect requirements and define scope practices are often performed numerous times throughout the life of a project as such many project team members often interchange these processes and assume them to be the same. Also, given the need to deliver telecommunication projects early, these two processes are often merged especially since the requirement documentation, a major output coming from the requirements gathering process, is an input for defining the scope of a project, define scope practice, employed by these organizations (Litten, 2013).

Table 1. Investigation of Scope Management Practices Employed on Projects among Telecommunication Firms

Scope Management Practice	5	4	3	2	1	Mean rank	SD
Collect Requirements	24 (25.5)	50 (53.2)	20 (21.3)	-	-	1.95	.68
Define Project Scope	23 (23.5)	48 (51.1)	23 (24.5)	-	-	4.00	.70
Create Work Breakdown Structure	27 (28.7)	47 (50.0)	20 (21.3)	-	-	4.07	.70
Verify Scope	7 (7.4)	63 (67.0)	24 (25.5)	-	-	3.81	.54
Control Scope	7 (7.4)	54 (57.4)	33 (35.1)	-	-	3.72	.59

Source: Field Survey (2014).

KEY: 1 = Not satisfactory, 2 = Slightly satisfactory, 3 = Moderately satisfactory, 4 = Satisfactory, 5 = Very satisfactory, N = 94

Factors Influencing the Choice of Project Scope Management Practices among Telecommunication Firms

As shown in Table 2.0 the highest (58.5%) proportion of the respondents agreed that competitive advantage is a significant factor that affects the choice of project scope management practices employed in the organizations. also, Organizational Process Assets was agreed to be slightly significant (38.7%) and moderately significant (21.7%) to the choice of project scope management practices employed in the organizations, Expert judgment was also agreed to be slightly significant (41.5%) and moderately significant (45.3%) to the choice of project scope management practices employed in the organizations. It was also revealed that the highest percentage of the respondents (85.8%) agreed that Complex Project scope statement is a significant factor that affects the choice of project scope management practices employed in the organizations.

The analysis further revealed that majority of the respondents (60.9%) agreed that Client's demand is very significant to the choice of project scope management practices, Dynamism of technology (64.6%) and Returns on the investment (52.5%) are also significant to the choice of project scope management practices employed by the firms. Lastly, Fast-tracking (65.6%), Project delays (50.5%), Client's demand, and Technical skill required (69.2%) were factors that significantly affect choice of project scope management practices employed by the organizations.

The summary of these results revealed that twelve factors were identified and ranked proceeding to the extraction exercised. Only four of these factors were extracted. The implication of these results is that these four critical factors accounted for over 4.00 and above of the variances observed as ranked in the analysis.

It can be deduced from the result that in order for teleco

mmunication organizations to provide better value on si milar products offered to customers among other compe titors, they tend to match their existing core competenci es with available opportunities so at to become the mark et leader. Also the study is in conformity with Project M anagement Institute report (2004) that Telecommunicati on organizations employ project scope management pra ctices in projects implementation in order to be able to meet up with the clients demand and their expectations.

The implication of these results is that while the contrib utions of other extracted factors on choice of project sco pe management practices employed in the organizations should not be ignored; special attention should be given to these four critical factors (Competitive Advantage, C omplex Project Scope Statement, Clients' Demand and Return on Investment). The knowledge and understandi ng of the contributions of these major factors are very p ertinent towards the choice of project scope managemen t practices employed among telecommunication organiz ations.

Table 2. Factors Influencing the Choice of Project Scope Management Practices Employed by Telecommunication Firms

Factors	5	4	3	2	1	Mean rank
Competitive advantage	-	62(58.5)	3 (2.8)	41(38.7)	-	**4.56**
Organizational Process Assets	-	12(11.3)	23(21.7)	41(38.7)	17(16.0)	3.68
Expert judgment	-	12(11.3)	44(41.5)	48(45.3)	-	3.69
Complex Activity list	-	3 (2.3)	19(17.9)	32(30.2)	3 (2.8)	3.61
Complex Project scope statement	9 (8.5)	91(85.8)	3 (2.8)	-	-	**4.03**
Limited resources	3 (3.2)	69(74.2)	21(22.6)	-	-	3.81
Fast-tracking	8 (12.5)	42(65.6)	14(21.9)	-	-	3.91
Project delays	2 (2.1)	48(50.5)	42(44.2)	3 (3.2)	-	3.52
Client's demand	56 (60.9)	33(35.9)	-	-	3 (3.3)	**4.51**
Technical skill required	1 (1.3)	54(69.2)	20(25.8)	3 (3.8)	-	3.68
Dynamism of technology	10 (15.4)	42(64.6)	10(15.4)	3 (4.6)	-	3.91
Returns on investment	41 (41.4)	52(52.5)	3 (3.0)	-	3 (3.0)	**4.29**

Source: Field Survey (2014).

KEY: 1 = Not significant, 2 = Slightly significant, 3 = Moderately significant, 4 = Significant, 5 = Very significant

Table 3. Correlation Matrix of Factors Influencing the Choice of Project Scope Management Practices

	1	2	3	4	5	6	7	8	9	10	11	12	13
Factors	1.00												
CA	-.173	1.00											
OPA	.448**	.264	1.00										
EJ	.261**	.476**	.172	1.00									
CAL	.187	.372**	.955**	-.176	1.00								
CPSS	.260**	.158	.235*	.443*	-.216**	1.00							

	1	2	3	4	5	6	7	8	9	10	11	12	13
LR	-.425**	-.108	.261*	.533**	-.456**	-.321	1.00						
FT	-.139	-.016	.176	.527**	-.043	.771**	-.516	1.00					
PD	-.207*	-.135	.292**	.004	-.007	.200	-.503**	-.026	1.00				
CD	.533**	-.074	-.160	-.441**	.115	-.317**	.360**	-166	-.141	1.00			
TSR	-.085	-.093	.115	.879**	-.217	.426**	.275	.360**	.178	.156	1.00		
DoT	.157	.094	.442**	.518**	.267*	.441**	-.458*	.409**	.378**	-.084	1.00**	1.00	
RoI	.309**	.236*	-.035	.012	-.044	-.102	-.096*	-.436**	-.068	.242*	.244*	.251*	1.00

Source: Field Survey (2014).

*Significant at 0.05 (two tailed)
**Significant at 0.05 (two tailed)

KEY: 1 = project scope management practices 2 Competitive Advantage, 3 = Organizational Process Assets, 4 = Expert Judgment, 5= Complex Activity List, 6 = Complex Project Scope Statement, 7 = Limited resources, 8 = Fast-Tracking, 9 = Project delays, 10 = Client's demand, 11 = Technical skill required, 12 = Dynamism of Technology, 13 = Returns on Investment.

Correlation Matrix of Factors Influencing the Choic e of Project Scope Management Practices Employed by the Telecommunication Firms

Table 3.0 showed the Correlation matrix of the existing relationship the listed factors have on choice of project scope management practices employed by telecommunication organizations. The result revealed that only six out of the twelve factors; Organizational process assets (r = .448**: p<0.05), Expert judgment (r = .261**: p<0.05), Complex project scope statement (r = .260**: p<0.05), Limited resources (r = -.425**: p<0.05), Client's demand (r = .533**: p<0.05), and Returns on investment (r = .309**: p<0.05) were shown to have a significant relationship with the choice of project scope management practices employed in the firms. The six factors were tested at 0.05 level of significant

ANOVA Results of Factors for the Choice of Project Scope Management Practices

Table 4.0 shows the Analysis of Variance results of the factors for the choice of project scope management practices employed in the firms from the opinion of the respondents. The result revealed that there were significant difference (F = 4.027, P = 0.045) from the opinion of the respondents that 'competitive advantage' is a factor for the choice of project scope management practices employed in the organizations. Also, 'organizational process' asset had a significant difference (F = 44.804, P = 0.0001) with the choice of project scope management practices employed in the organizations. 'Expert judgment' had a significant difference (F = 4.452, P = 0.037) with the choice of project scope management practices employed in the organizations, 'complex activity list' had a significant difference (F = 60.014, P = 0.0001) with the choice of project scope management practices employed in the firms, 'complex project scope statement' had a significant difference (F = 10.435, P = 0.0021) with the choice of project scope management practices employed in the organizations, 'limited resources' had a significant difference (F = 10.230, P = 0.0001) with the choice of project scope management practices employed in the organizations, 'fast tracking' had a significant difference (F = 30.738, P = 0.0021) with the choice of project scope management practices employed in the organizations. However, the result showed that there were no significant difference (F=2.910, P = 0.091) in the opinion of the respondents on 'project delay' as it affects the choice of scope management practices employed by the organizations. The result further shows that there were no significance difference (F=0.210, P = 0.648) in the opinion of the respondents on 'client's demand' as it affects choice of scope management practices employed by the organizations, there were no significance difference (F=.021, P = 0.886) in the opinion of the respondents on 'technical skill required' as it affects choice of scope management practices employed by the organizations, there were no significance difference (F=1.283, P = 0.272) in the opinion of the respondents on 'dynamism of technology' as it affects choice of scope management practices employed by the organizations, there were no significance difference (F=2.706, P = 0.103) in the opinion of the respondents

on 'return on investment' as it affects choice of scope management practices employed by the organizations

Table 4. ANOVA Results of Factors for the Choice of Project Scope Management Practices

FACTORS		Sum of Squares	Df	Mean Square	F	Sig.
CA	Between Groups	1.197	1	1.197	4.027	.045
	Within Groups	30.331	102	.297		
OPA	Between Groups	26.155	1	26.155	44.804	.000
	Within Groups	51.955	89	.584		
EJ	Between Groups	1.944	1	1.944	4.452	.037
	Within Groups	44.114	101	.437		
CAL	Between Groups	13.347	1	13.347	60.014	.000
	Within Groups	12.010	54	.222		
CPSS	Between Groups	1.903	1	1.903	10.435	.002
	Within Groups	18.057	99	.182		
LR	Between Groups	19.960	1	3.266	17.230	.000
	Within Groups	3.266	91	.190		
FT	Between Groups	7.105	1	7.105	30.738	.000
	Within Groups	14.332	62	.231		
PD	Between Groups	.968	1	.968	2.910	.091
	Within Groups	30.279	91	.333		
CD	Between Groups	.138	1	.138	.210	.648
	Within Groups	58.609	89	.659		
TSR	Between Groups	.007	1	.007	.021	.886
	Within Groups	24.980	76	.329		
DoT	Between Groups	.638	1	.638	1.283	.272
	Within Groups	30.800	62	.497		
RoI	Between Groups	1.726	1	1.726	2.706	.103
	Within Groups	60.603	95	.638		

Source: Field Survey (2014).

KEY: CA = Competitive Advantage, OPA = Organizational Process Assets, EJ = Expert Judgment, CAL= Complex Activity List, CPSS = Complex Project Scope Statement, LS = Limited resources, FT = Fast-Tracking, PD = Project delays, CD= Client's demand, TSR = Technical skill required, DoT = Dynamism of Technology, RoI = Returns on Investment

IV. CONCLUSION

The study investigated project scope management practices among organizations in the telecommunication sector in Nigeria and examined the determinant factors for the choice of project scope management practices employed in the organizations.

The study revealed that major project scope management practices employed by telecommunication firms were define project scope (4.00), create work breakdown structure (4.07), verify scope, (3.81), and control scope (3.72). The factors shown to significantly influence the choice of project scope management practices are competitive advantage, organizational process assets, complex activity list, complex project scope statement, limited resources, fast tracking, and expert judgment. The studies further revealed that the key significant impact of project scope management practices on project success were customer expectation, customer satisfaction, resource allocation and project duration.

The adoption of project scope management practices by telecommunication organizations in Nigerian are majorly affected by 'Competitive advantage', 'Complex

project scope statement', 'Client demand' and 'Return on investment'. This will eventually ensure profitability, better return on investment and continued market share.

V. REFERENCES

[1]. Ajiboye, J. O., Adu, E. O., and Wojuade, J. I. (2007): Stakeholders' Perceptions of the Impact ofGSM on Nigeria Rural Economy: Implication for an Emerging Communication Industry. Journal of Information Technology Impact. 7 (2), 131 - 144.

[2]. Avison, D. E., and Torkzadeh, G. (2009): Information Systems Project Management, Sage Publications, Inc., 87 -93, ISBN 978-1-4129-5702-1 (pbk.).

[3]. CIO Magazine (2001): Measuring the ROI of Training, http://www.cio.com/article/2441801/trainingeasuring-the-roi-of-training/training/measuring-the-roi-of-training.html, 1-2 (accessed 19 December, 2013).

[4]. Heeks, R. (2002): Information Systems and Developing countries: Failure, success, and local improvisations. The information Society, 18, 101 – 112

[5]. Heldman, K. (2009): PMP: Project management professional exam study guide 5th Edition. Wiley Publishing, Inc. ISBN: 978-0-470-45558-6

[6]. Litten, D. G. (2013): PMP Primer Step by Step guide, http://www.pm-primer.com/collect-requirements-and-define-scope-processes/ (accessed 22 May, 2014).

[7]. Luckey, T., and Phillips, J. (2006): Software Project Management for Dummies. Wiley publishing, Inc. ISBN-13: 978-0-471-74934-9, 286-298.

[8]. Mulcahy, R. (2009): PMP Exam Prep: Rita's course in a book for passing PMP exam sixth Edition, RMC publications.

[9]. Ojiako, G. U., Greenwood, D. J., Johansen, D. E. (2005): 'Modeling New Success Criteria for Projects in the ICT Industry' Journal of Information and Communications Technology, 4, 17-36.

[10]. PMBOK (2013): Guide to the Project Management Body of Knowledge (PMBOK Guide) - Fifth Edition. ISBN 978-1-935589-67-9

[11]. PMI (2004): An Executive Guide to OPM3: A Guide to Strategic Success, Business Improvement and Competitive Advantage.

[12]. Robert, O., and Gavin M. (2010): ICT and Regional Economic Dynamics: Joint Research of the Institute for Prospective Technological Studies Publications Office of the European Union2010, ISSN 1018-5593, ISBN 978-92-79-16568-9 doi:10.2791/46419, European Commission

[13]. Schwalbe, K. (2011): Information Technology Project Management, Sixth Edition. http://www.cengagebrain.com.au/DB6D4C7B-47B9-4763-BB01-EF66CF0DF84B/ pdf ISBN 13: 978-0-538-48268-4 (accessed 20 June, 2014)

[14]. Varner, M (2014): A Beginner's Guide to Project Management Methodologies

[15]. http://www.attask.com/resources/blogpost/beginners-guide-project-management-methodologies/ (accessed 20 June, 2014)

[16]. Wysocki, R. K. (2009): Effective Project Management: Traditional, Agile, Extreme. 5th Edition. 2009 Wiley Publishing, Inc. ISBN 978-0-470-42367-7