

Active Listening as a Major Stakeholder Management Strategy for Effective Software Engineering Project in Nigeria

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Abstract: Active listening involves being attentive to what the speaker is saying instead of thinking what to reply when the speaker finish talking. Stakeholder management is an important approach which the project managers should use to understand the people involved in the project. These people called stakeholders have needs, concerns, expectations and requirements which the project will provide. They need to be listened for the project to meet their needs, concerns, expectations and requirements. Questionnaire was used to collect data from 130 respondents from software development organizations and the collected data was analyzed using Pearson correlation coefficient to determine the relationship between active listening and effective software engineering projects in Nigeria. This study investigates the extent to which active listening contributes to effective software engineering projects in Nigeria. This result showed that active listening as a strategy of stakeholder management will produce effective software engineering projects in Nigeria.

Keywords: active listening, stakeholder management, software engineering projects, stakeholders, software projects

1. Introduction

The International Listening Association (ILA) defined listening as the process of receiving, constructing meaning from, and responding to spoken and/or nonverbal communication (Purdy, 1997). Active listening happens when the listener tries to comprehend clearly what the speaker is saying. It differs from effective listening which attempts to understand what the speaker says from the perception of the speaker and empathize with the speaker. Sunindijo, (2015) that communication is the most important characteristics of project success. During software engineering project development, project managers spend most of their time communicating with other stakeholders through Internet Messenger (IM), email, whatapps, briefing, presentations, and attending meetings. Lots of communication goes on in software engineering project development. Tit (2018) outlined a typical communication line that goes in software engineering project as follows: The sponsor or owner generates the project vision and gives it to the project manager who in turn conveys it to the development team in an understandable format. The development team reports back to the project manager the progress of project or any obstruction to ensure that the project is delivered on time and within budget. As the project progresses, the project manager continually consults the stakeholders for

any suggestions or concerns regarding the project execution. The final output (software) is delivered to owner who will then release it to end-users.

Software engineering projects comprises many stakeholders from different backgrounds with varying requirements, expectations, perspectives, and interests in the outcome of a project. As such project development organizations need to understand stakeholders' interests, requirements, perspectives, expectation, and align them to achieve the project objectives and to avoid potential conflicts. According to Kliem (2007), when project managers failed to ascertain the credibility of what a project stakeholder (the speaker) said, the result is erroneous or incomplete requirements and inaccurate product. This situation allows conflict to arise any time during the project life cycle unless communication goes on continuously among project stakeholders.

2. Related Literature

Active listening involves not only hearing but clearly understanding of what the speaker is saying and it requires the presence of the listener at that moment and being interested in what the speaker is saying (Garciaorres,

2013). It is the main aspect of effective communication and shows the level of interest and engagement when someone is communicating. The first form of communication a child acquires from birth is listening; unfortunately, this is also the least developed in life (Purdy, 1997.). Listening comes first before response and that is why the book of Proverbs says that “The one who gives an answer before he listens—this is foolishness and disgrace for him” (Proverbs 18:13; Holman Christian Standard). Brownell (1996) developed this HURIER model to enable project managers listen actively to project stakeholders as depicted in figure 1

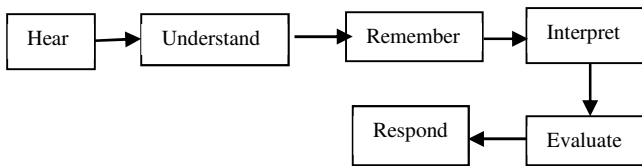


Figure 1: HURIER Model of Listening tasks
 (Source: Brownell, 1996)

Adelmann (2012) identified different types of active listening as: reflection – using ones’ own words to repeat what the speaker said, repetition – using synonyms of the words the speaker used, and mirroring – using the same words as the speaker.

According to Garciatorres (2013), communication is of two parts: listening and speaking but listening is more important than speaking to the extent that there are two ears and one mouth. People just hear instead of listen and that is why these two words are interchanged, listening and hearing. Brownell (1996) defined hearing as sound waves reception, perception of sound and aural association, while listening according to ILA (1996) involves receiving, constructing and responding. Listening is psychological in nature while hearing is physiological (Mercadal-Sabbagh & Purdy, 2015). Listening can be effective or active. Effective listening attempts to understand the viewpoint of the speaker and empathize with the speaker. Effective listeners are open and fair-minded, appreciative and have positive attitude towards others while ineffective listening causes stress and anxiety (Weger, Castle, Minei, & Robinson, 2014). Lloyd, Boer, Keller, and Voelpel, (2015) said that active listening happens when the listener tries to comprehend obviously what the speaker is saying. Active listening according to PMI (2013) acknowledges, clarifies and confirms, understands and overcomes barriers that negatively affect conception. It reduces misapprehensions, improves communication, and increases knowledge sharing (Bodie, Vickery, Cannava, & Jones, 2015). Kliem (2007) said that a stakeholder may find it difficult to comprehend what another stakeholder says due to noise,

hearing impairment, speech disorder in the part of the speaker, preoccupation with personal matters, cultural discrimination, accents, and uninterested in the topic.

According to Li, Ng, and Skitmore (2012), conflict occurs during project development when stakeholders’ views and opinions are not considered. Active listening to stakeholders encourages them to ensure that everyone has something to offer for the success of the project (Lock & Smith, 2013). In computer weekly news of January 2011, Goodwin (2011) wrote that Gartner report correlated business intelligence project failure to poor communication to the extent that implementing the right requirements became an issue. According to PMI (2013) project managers should listen more to stakeholders than speaking with them and spend up to 90% of their time communicating with project stakeholders. Sweeney (2010) in her post on 29 June said that active listening comes first whenever she test the views of people attending her communication workshop on the most important skill. Other researchers (Goodwin, 2011; Sunindijo, 2015; Lloyd et al, 2015) saw active listening as the gateway to trust and build solid relationship among stakeholders.

For a project to succeed, active listening skill must be exercised by project managers in order to communicate and interact with stakeholders (Tit, 2018). Project organization should learn how to listen to the right people who are concerned with how the project can deliver required results. Even Goldstein (2013) is of the opinion that to understand the requirements and needs of stakeholders, project managers need to actively listen to stakeholders throughout the project lifecycle to achieve stakeholder satisfaction and project team responsiveness. Therefore, attention should be given to stakeholders’ requirements, expectations, and needs as well as issues raised by the project team (Li et al, 2012).

3. Methodology

The population of the study was divided into three groups; tertiary institutions, government agencies and government ministries and comprises 45 ICT managers with 43 software engineers and 42 project managers The study used questionnaire method to collect data from 130 respondents in 30 selected software engineering projects in Nigeria. The respondents are individuals who are either employed in software development organizations in Nigeria or those who are actively involved in software development activities. The selected respondents were in the best position to determine the overall performance of any project. The questions on the questionnaire were formulated from the literatures and evaluated whether the

software project organizations were actively listening to their stakeholders during software project development or not. The questionnaire was sent to respondents who returned it after completion. Out of 180 copies of the questionnaire that were sent out, only 130 copies were properly completed and returned.

Pearson Correlation is used to establish the relationship between active listening and effective software engineering projects while regression analysis is used to predict the value of effective software engineering projects in relation to a known value of active listening.

5. Results

There are 25 respondents from tertiary institutions who returned the completed questionnaire and 3 of them have worked for more than 15 years while 9 worked for less than 5 years. Government agencies had 50 respondents who returned the completed questionnaire and 8 of them have worked for more than 15 years while 18 worked for less than 5 years. In Government ministries, 55 respondents returned the completed questionnaire of which 12 of them have worked for more than 15 years while 8 worked for less than 5 years. The result in figure 2 depicted the cross tabulation of work experience of all respondents according to the nature of the organization.

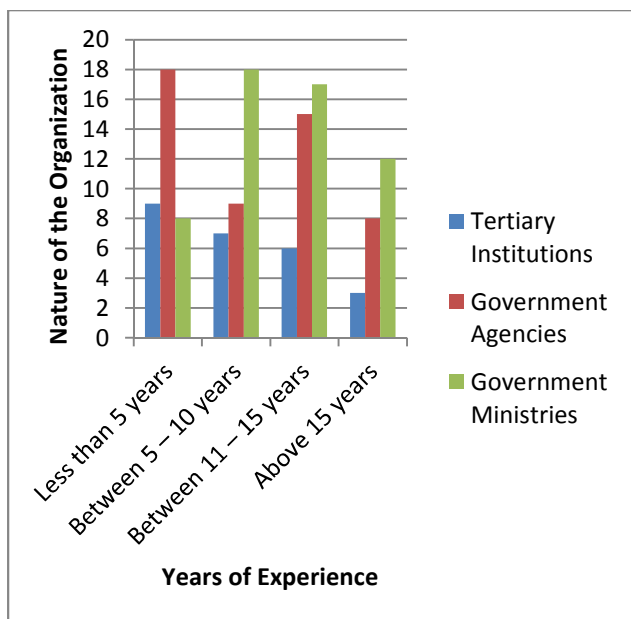


Figure 2: Years of Experience versus Nature of the Organization

The nature of the organization involved in this study was cross tabulated with the role of the respondents as shown

in table 1. It was discovered that 9 ICT managers from tertiary institutions participated in the study with 7 project managers and 9 software engineers. In Government agencies, 23 ICT managers participated with 11 project managers and 16 software engineers while Government ministries had 16 ICT managers who participated with 23 project managers and 16 software engineers.

Table 1: Cross tabulation of Nature of the Organization versus Position

	Nature of the Organization	Position			Total
		ICT Manager	Project Manager	Software Engineer	
	Tertiary Institutions	9	7	9	25
	Government Agencies	23	11	16	50
	Government Ministries	16	23	16	55
	Total	48	41	41	130

Table 2 showed that the Pearson correlations reveal significant association between active listening and effective software engineering projects. The correlation coefficient (R) confirmed that 65 % of the variance in effective software engineering projects is explained by active listening (R = 0.649). This indicates a strong positive linear relationship between active listening to stakeholders and effective software engineering projects in the organizations under study. It shows that over the years, organizations with high active listening to stakeholders also experienced high effective software engineering projects.

Table 2: The Correlation Procedure for active listening to stakeholders and effective software engineering projects in Nigeria

		Active Listening	Effective Software
Active Listening	Pearson Correlation	1	.649
	Sig. (2-tailed)		.000
Effective Software	Pearson Correlation	.649	1
	Sig. (2-tailed)	.000	
N		130	130

Regression analysis was carried out to empirically establish whether active listening to stakeholders is a significant determinant of effective software engineering

projects in Nigeria. The results in table 3 show the goodness of fit for the regression between active listening to stakeholders and effective software engineering projects was satisfactory. However, the standardized coefficient value of 0.649 shows that equation explains only 65% of the variations in effective software engineering projects in Nigeria. Additionally, the regression model attested that there is a positive linear relationship between active listening to stakeholders and effective software engineering projects in Nigeria.

Table 3: The Parameter estimate for active listening to stakeholders and effective software engineering projects in Nigeria

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	29.921	3.576		8.367	.000
1 Active Listening	1.066	.110	.649	9.656	.000

a. Dependent Variable: Effective Software Engineering Project

Table 3 showed that B =1.066 with p-value = 0.00 implies that an increase in active listening to stakeholders by 1 unit will lead to an increase in effective software engineering projects by 1.066. Thus, the alternative hypothesis that active listening contributes significantly to effective software engineering projects. The regression model for the effect of active listening to stakeholders on effective software engineering projects is obtained as:

$$\text{Model 1: } Y = 29.921 + 1.066 X \quad (1)$$

Where

Y = Effective software engineering projects in Nigeria

X = Active listening to Stakeholders

Table 4: The Regression Procedure for Active Listening to Stakeholders and Effective Software Engineering Projects in Nigeria

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	12080.074	1	12080.074	93.242	.000 ^b
1 Residual	16583.157	128	129.556		
1 Total	28663.231	129			

a. Dependent Variable: Effective Software Engineering Project

b. Predictors: (Constant), Active Listening

Model 1 and figure 2 confirm that there is a positive linear relationship between active listening to stakeholders and effective software engineering projects in Nigeria. Table 4 indicates that the computed F-value in Table 4 is 93.242 with a significance level of 0.000 is less than 0.05. Thus, the test is significant (P < 0.05) at 5% level of significance and then concludes that active listening to stakeholders significantly contributes to effective software engineering projects in Nigeria.

The findings corroborate with the results of Milis and Vanhoof (2007) who revealed that listening actively to stakeholders concerns and requirements increases the chances for project success. Also Kaur and Senguta (2011) asserted that considering stakeholders' requirements, needs, and expectations enable project organizations resolve project issues and keeps the project on track. This can be achieved when stakeholders are listened to and their requirements implemented.

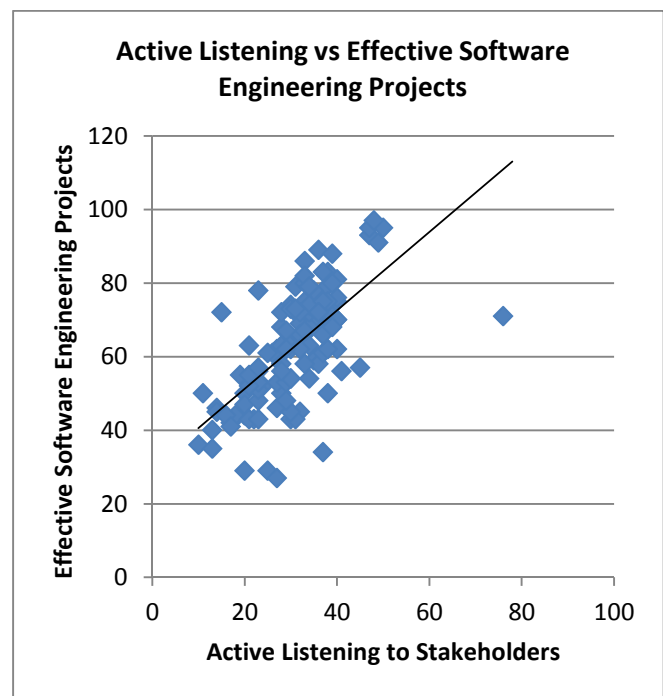


Figure.3: Scatter plot of Active Listening to Stakeholders and effective Software Engineering Projects in Nigeria

A graphical illustration of the relationship between active listening to stakeholders and effective software engineering projects is presented in figure 3. And it showed that positive relationship exists between active listening and effective software engineering project in Nigeria.

Thus an increase in active listening leads to an increase in effective software engineering projects.

6. Discussions

The study demonstrated how active listening can be used during software project development to bring the project to a successful completion. It found that active listening is an important strategy which stakeholders of software project organizations should acquire in order to complete software projects effectively. Though most literatures concentrated on known critical success factors, this study has proved active listening to be a strategy for effective software engineering projects. It also shows that project organizations that use active listening during software project development are likely to achieve successful results. The result agrees with Sweeney (2010) that project managers rate active listening higher than other types of communication. A similar result was found by Culo and Skendrovic. (2010), who viewed it as a way of bring project stakeholders closer during project development. Lloyd et al, (2015) warned project organizations that having poor listening skills will jeopardize their working relationship with other stakeholders and can cause project failure. This suggests that active listening plays a vital role in establishing relationship with stakeholders that will help them work successfully towards the completion of the project. As such active listening is the hidden key to successful project (Tit, 2018)

7. Conclusion

In conclusion, active listening is beneficial to project success because stakeholders can understand each other's intentions. It gives the stakeholders a clearer vision of the project progress and any setback that may hinder the project from progressing. Stakeholders can ask questions and get clarifications on issues about the project execution. When the stakeholders know that their ideas and suggestions are taken into consideration, they are encouraged to contribute more to the progress to the project. It also builds relationship to stakeholders because they see the project situation from each other's perspective and this encourages openness. Project managers should be good listeners as they communicate with other stakeholders or project teams. If a project manager fails to listen actively conflict might arise at any stage of the project lifecycle thereby producing negative effects. In order to bring the project to successful completion, project stakeholders need to actively listen to one another during project development. We therefore conclude that active listening to stakeholders significantly contributes to effective software engineering projects in Nigeria to a

relatively high extent. Further study can be carried out to check if stakeholders prefer active listing to effective listening during software project development.

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