

Communication Satisfaction and Organizational Commitment of Agriculture Researchers in South-West Nigeria: Mediating Role of Job Satisfaction

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Summary

This study was designed to examine the mediating role of job satisfaction on the relationship between communication satisfaction and organizational commitment of agriculture researchers in six purposively selected agricultural research institutes in Nigeria. Communication satisfaction in this study was considered both as uni-dimensional and multi-dimensional construct. The results obtained from 209 respondents of focal research institutes using the hierarchical regression analyses indicated that overall communication satisfaction was significantly related to job satisfaction ($b=0.11$, $p<0.01$) and organizational commitment ($b_1=0.15$, $p<0.01$). Further, top management communication was found to be significantly related to job satisfaction ($b_1=0.31$, $p<0.01$). Similarly, relationship to supervisor ($b_1=0.19$, $p<0.05$), top management communication ($b_1=0.27$, $p<0.05$) and organizational integration ($b_1=0.27$, $p<0.05$) were significantly related to organizational commitment. The Sobel test also indicated that job satisfaction partially mediated the relationship between communication satisfaction and researchers' commitment ($Z=4.45$, $p<0.05$). The findings clearly showed that with increased communication satisfaction, researchers' satisfaction with job is boosted and they are likely to exhibit greater organizational commitment and less willing to leave the organization. Evidence of partial mediation revealed that job satisfaction may not be the only mediator of the predictor-criterion linkage.

Key words

agriculture researchers, communication satisfaction, job satisfaction, mediator, organizational commitment

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Introduction

Communication is important in the development of employee satisfaction in any organization. This is because it is the social force that enables individuals to work cooperatively toward achieving common organizational goals (Nebo et al., 2015). Theodorson and Theodorson (1969) defined communication as the transformation of information, ideas, attitudes, or emotions from one person or group of persons to another, primarily through symbols. Communication is therefore not a secondary or derived aspect of an organization. It is a 'helper' of the other presumably more basic functions (Lillico, 2016). It is indeed the essence of organized activities (Clampitt, 1997). The functions of communication in organizations could be categorized as to inform, regulate, integrate, manage, persuade, and socialize organizational members (Simsek, 2015). To inform means providing necessary information for employees while regulating the organization is related to management issues. Integration of the organization means allowing members of the organization to participate fully in the happenings therein, meaning coordination. Persuasion on the other hand is generally evaluated between supervisors and subordinates or peers while socialization refers to being integrated into the communication networks (Richmond and McCroskey, 2005).

Communication satisfaction is therefore considered as an important barometer of organization's well-being and functioning (Downs and Adrian, 2004; Downs and Hazen, 1997). It shows the communicative behavior about which employees have outright positive or negative feelings (Zwijze-Koning and de Jong, 2007). Researchers generally assume that effective and satisfactory communication may contribute to an organization's productivity, performance and external customer orientation (Downs and Adrian, 2004). It has also been shown to influence employees' level of job satisfaction, organizational commitment and work motivation (Varona, 1996). Communication satisfaction can however be viewed as total (overall) or multi-dimensional. Six dimensions of communication satisfaction were considered in this study. These are relationship to supervisors, horizontal communication, top management communication, media quality, organizational integration and inter-departmental communication (Downs and Hazen, 1997).

Relationship to supervisor focuses on the interaction existing between supervisors and employees at workplace. Horizontal communication concerns the extent to which communication with co-workers and informal communication process is accurate and flows freely. Top management communication evaluates the communication of top management (managers) with organization members. Media quality, however, deals with the extent to which meetings are well-organized, written directives are short and clear, and the degree to which the amount of communication is adequate. Inter-departmental communication focuses on communication needed among the different departments of the organization in order to facilitate their efficiency. Lastly, organizational integration harmonizes the internal and external characteristics of the organization.

However, job satisfaction is an employee's attitudinal response towards various aspects of the job (Bakshi and Kumar, 2009). This perspective of job satisfaction reflects on employee's perceptions about certain aspects of the job relative to his or her values. As an attitude, it is conceptualized as consisting of evaluative, cognitive and affective responses. A satisfied worker finds his work less

stressful, regularly attends work, is committed to the organization, does not consider leaving the organization and is likely to have improved job performance (Kreitner *et al.*, 2002). Job satisfaction is thus viewed in this study as a mediator.

A mediator accounts for the relationship between a predictor and a dependent variable. Rucker *et al.* (2011) opined that mediation explains the process by which the predictors affect the criterions. Previous research has suggested that a lack of clear expectation regarding job roles is likely to result in the dissatisfaction of employees (Yousef, 2002). Communication satisfaction experienced by employees can eliminate this barrier by improving the satisfaction of employees with job. This on the long run can help in enhancing higher organizational commitment.

Further, organizational commitment, is viewed as the strength of involvement one has with the organization (Addae and Parboteeah, 2006). Some researchers suggested that commitment is shown through congruence between personal and organizational goals and values or through an exchange of behavior for valued rewards (Becker *et al.*, 1996). Individuals with higher levels of organizational commitment have a sense of belonging and identification with the organization. This increases their desires to pursue organizational goals and activities as well as to remain a part of the organization (Meyer and Allen, 1997). Meyer and Allen (1991) reported a three-dimensional view of organizational commitment (affective, normative, and continuance commitment). From their study, they predicted general job satisfaction to be more highly related to affective commitment than other forms of commitment.

Although numerous researchers have reviewed the important role of communication satisfaction in organizational behavior, there is a paucity of the communication research in agricultural research institutes that forms the fulcrum of agricultural innovation in Nigeria. According to Lepsinger and Luacia (1991), low level of communication stands out as the single most important reason why employees do not advance in their career and also why they are not productive. For this reason, communication satisfaction in organizations, especially research institutes, becomes very important. This is because of the unique responsibility of agricultural researchers in providing timely information to farmers for ensuring adequate food production in a developing country like Nigeria. Thus, communication satisfaction is a likely predictor of organizational commitment and job satisfaction in the current study. Research trends on social exchange in the workplace however, indicated that employee satisfaction could be a causal mechanism between favourable or unfavourable work conditions (Chiang *et al.*, 2005). This study therefore suggests that communication satisfaction will have initial effect on job satisfaction. Higher satisfaction is expected to engender higher organizational commitment and vice - versa. Further, personnel's satisfaction with both communication and job will enhance productivity and their continued stay with the organization.

Research objectives and hypotheses

The research sets out to examine if there are significant relationships between socio-demographic characteristics and criterions (job satisfaction and commitment) of researchers in focal institutes.

H1: There are significant relationships between socio-demographic characteristics and criterions (job satisfaction and

organizational commitment) of agricultural researchers. It is expected that these characteristics will be determinants of researchers' satisfaction with job and consequently their commitment to the research institutes.

It also examines the relationships among communication satisfaction dimensions, job satisfaction and organizational commitment of agriculture researchers in Nigeria.

H2: There are significant relationships among various dimensions of communication satisfaction, job satisfaction and organizational commitment of agriculture researchers. The overall and six-dimensional facets of communication satisfaction are expected to increase researchers' satisfaction with job and their affective commitment to the research institutes.

It further examines the mediating influence of job satisfaction on overall as well as various dimensions of communication satisfaction and agriculture researchers' commitment.

H3: Job satisfaction mediates the relationship between communication satisfaction dimensions, and organizational commitment of agricultural researchers. It is suggested that employees who are satisfied with relationship to supervisor, horizontal communication, top management communication, media quality, organizational integration and inter-departmental communication will develop positive affect for job. This satisfaction is expected to be reciprocated by employees' affective commitment to the organization.

Methodology

The target population for this study consisted of agricultural researchers from six purposively selected research institutes in South-West Nigeria. Fifty researchers were randomly selected from the population of the agricultural researchers in each of the six purposively selected research institutes. A total of 300 researchers were in all selected for this study. Valid responses were obtained from 209 respondents (i.e. 69.6% responses). Hence, 209 researchers formed the sample size of the study. Structured questionnaires were employed to elicit information from the respondents.

Measures

The questionnaire consists of five socio-demographic data (sex, age, tenure, professional status and educational level) and three opinion scales as discussed below:

1. Communication Satisfaction: Communication satisfaction questionnaire by Zwijze-Koning and de Jong (2007) was used as a communication audit tool with twenty-two perceptual statements.
2. Overall job satisfaction: Six item scales developed by Brayfield and Rothe (1951) was adapted.
3. Organizational Commitment (Affective commitment): A six-item scale by Meyer and Allen (1997) was adapted for measuring organizational commitment of researchers.

Data analysis

The hierarchical regression procedure was employed for the mediational analyses that were done in this study (Tabachnick and Fidell, 1989). To test for the mediating role of job satisfaction, the four-step procedure outlined by Preacher and Leonardelli (2001) was employed. First, the predictor should significantly relate to the mediator and there should be a significant relationship between the predictor and criterion in the absence of the mediator. Further, the

mediator should have a significant relationship with the criterion while the magnitude of the relationship between predictor and criterion should become non-significant or reduced upon the inclusion of the mediator. This will provide evidence of full or partial mediation of the model.

Results and discussion

The age of respondents ranged from 25 years to 57 years (\bar{x} =35.57 years, Sd=6.18 years). More than half (55.02%) of the respondents was in the age range of 31-40 years (Table 1).

This result is in line with the findings of Ibeun (2002) who reported that (59.0%) of researchers in South-West Nigeria fall within

Table 1. Socio-demographic characteristics of respondents (n=209)

Variables	Frequency	Percentage	Mean	Standard deviation (sd)
Age (years)				
21 – 30	46	22.01	35.57	6.18
31 – 40	115	55.02		
41 – 50	42	20.10		
51 – 60	6	2.87		
Total	209	100.00		
Sex				
Male	127	60.8		
Female	82	39.2		
Total	209	100.0		
Tenure (years)				
1 - 10	181	86.6	6.12	3.98
11 – 20	27	12.9		
21 – 30	1	0.5		
Total	209	100.0		
Professional status				
Senior officer	128	61.2		
Mid-level officer	65	31.1		
Junior officer	16	7.7		
Total	209	100.0		
Educational level				
B.Sc	65	31.1		
M.Sc	119	56.9		
Ph.D	25	12.0		
Total	209	100.0		

the age range of 31 - 40 years. This implies that more than half of the respondents were still within the active and economically-productive age bracket and they should be active in research work. Further, 60.8% of respondents were male while 39.2% were female, implying that the research institutes were dominated by males. This finding supports the findings of Banmeke and Ajayi (2010) who reported that there were more (84.8%) male researchers than their female counterparts in research institutes in Nigeria. However, from the findings of this study, more female researchers have been employed compared to what was obtainable in years back. Further, most of the respondents (86.6%) had spent between 1-10 years in the organization, with an average of 6.12 years (SD=3.98) on the job. The implication of this is that a large proportion of respondents are still young in the organization and they have the opportunity to serve for more years to boost agricultural productivity in the country.

Table 2. Hierarchical regression of organizational commitment on communication satisfaction and job satisfaction as a mediator (n=209)

Variables	Job satisfaction		Organizational		Commitment	
	β	SES	β_1	SES ₁	β_2	SES ₂
Step I: Socio- demographic characteristics						
(Constant)	17.27**	1.99	8.18**	2.50	4.20	2.47
1. Age	0.06	0.05	0.05	0.05	0.02	0.05
2. Sex	-0.17	0.45	-0.05	0.49	0.46	0.46
3. Tenure	-0.05	0.07	0.08	0.08	0.11	0.07
4. Professional status	0.44	0.40	0.16	0.44	0.17	0.42
5. Educational level	0.82*	0.40	0.39*	0.44	0.33	0.42
ΔR^2	(0.04)		(0.07*)			
Step II: Predictor						
6. Overall communication satisfaction	0.11**	0.01	0.15**	0.01	0.10**	0.01
(a). Relationship to supervisor	0.07	0.06	0.19*	0.08	0.16*	0.08
(b). Horizontal communication	0.05	0.11	0.03	0.14	0.01	0.14
(c). Top management communication	0.31**	0.08	0.27*	0.10	0.17	0.10
(d). Media quality	0.16	0.12	0.01	0.15	0.05	0.14
(e). Organizational integration	0.20	0.15	0.27*	0.19	0.20	0.18
(f). Interdepartmental communication	0.07	0.20	0.06	0.26	0.03	0.25
Step III: Mediator						
7. Job satisfaction	-	-	--		0.43**	0.08
R	0.52				0.65	
R ²	0.27				0.42	
Adj R ²	0.25				0.40	
F	12.78**				21.11**	
SES	2.63				3.08	
DF	13,195				14,194	

* P < 0.05, ** P < 0.01.

Furthermore, more than half of the researchers were senior officers (61.2%) and this was earned through their educational qualifications. This could suggest that a large number of researchers got their appointments with higher educational status which qualified them as senior officers. Further, this level of academic attainments, as shown in Table 1, also confirmed that respondents possessed adequate qualifications for enhancement of positive contribution to research findings.

In Step I, the socio-demographic characteristics (sex, age, tenure, professional status and educational level) were entered in the model to act as controls (Table 2). Only educational level was significantly related to job satisfaction ($b=0.82$, $p<0.05$) and organizational commitment ($b_1=0.39$, $p<0.05$). This implies that the higher the educational level of the researchers, the more satisfied they are with their jobs and the more committed they are to the organization. There was however an insignificant relationship between the rest of the socio-demographic characteristics and job satisfaction in this study. Aside the significant relationship found between educational level and job satisfaction, the result of this study agrees with the findings of Banmeke and Ajayi (2005). They found insignificant relationships between respondents' (age, sex, tenure and educational level) and job satisfaction. The implication of this result is that the level of education attained by researchers is a determinant of their satisfaction with job and so, higher academic status may be required in organizations for ensuring personnel job satisfaction.

Moreover in Step 1, only educational level is positively related to organizational commitment. This implies that the higher the educational level of researchers, the more they are committed to the research institutes. This result agrees with previous research that

workers with higher educational levels occupy higher ranks and therefore have more responsibilities that invariably require more commitment to the organization (Busch et al., 1998).

In Step II, overall communication satisfaction was entered in the model and it was related to job satisfaction ($b=0.11$, $p<0.01$) and organizational commitment ($b_1=0.15$, $p<0.01$). A significant positive relationship found between communication satisfaction and job satisfaction in the current study is consistent with previous findings that reported that satisfaction with the information provided by management enhances job satisfaction (Downs and Adrian, 2004). The correlation between communication satisfaction and job satisfaction could be explained as a perception on the part of employees that adequate provision of information by the organization is evidence of their social standing within the organization (Veeran and Katz, 2002). The implication of this result is that increased satisfaction with overall communication in the organization will positively enhance researchers' satisfaction with job. Further, the significant relationship found between communication satisfaction and organizational commitment agrees with the findings establishing a significant positive relationship between the linkage (De Ridder, 2004; Ng et al., 2006). Thus, satisfaction with overall communication was found to be related to researchers' commitment to the organization and as such, was a predictor of their commitment to the research institute.

Moreover, six dimensions of communication satisfaction were entered as shown in Table 2. Only top management communication had significant relationship with job satisfaction. This is an indication that when employees interact with top management for vision sharing as well as participating in decisions concerning their jobs among others, they tend to be satisfied with their jobs.

This result supports the findings in transformational leadership research which prescribes top management communication as a tool for developing and sharing of visions in organizations, encouraging innovativeness, support for employees' efforts and their abilities to take part in decision making activities (Niehoff *et al.*, 1990).

Moreover, there were significant relationships found between relationship with supervisor ($b_1=0.19$, $p<0.05$), top management communication ($b_1=0.27$, $p<0.05$), organizational integration ($b_1=0.27$, $p<0.05$) and organizational commitment. Thus, when researchers have good relationship with their supervisors, management are willing to give a listening ear to subordinates and there is proper integration of internal and external characteristics of the research institutes, commitment of researchers will be fostered. Organizational integration as opined by Varona, (1996) focuses on the coordination of activities within the organization. It occurs when organizations' internal and external factors mesh for improved performance. These internal factors include management style, organizational structure and organizational culture while the external characteristics include organizational mission, input and output. This study result is supportive of his opinions. The implication of this result on the organization is that when employees are well informed about its mission coupled with an ideal management style (democratic or autocratic), there will be increased commitment to the organization which will foster better innovations for improved agricultural development in Nigeria. Farmers as stakeholders in agricultural development in Nigeria will have access to useful research findings that will ensure a sustainable agricultural development.

Further in Step III, job satisfaction was entered in the model and it was significantly related to organizational commitment ($b_2=0.43$, $p<0.01$). This significant relationship between job satisfaction and organizational commitment after controlling for overall communication satisfaction fulfilled the third mediation condition. However, only evidence of partial mediation was provided for by the non-disappearance of significant relationship between overall communication satisfaction and organizational commitment ($b_2=0.10$, $p<0.01$) as shown in Table 2. Further, evidence of partial mediation was provided for by the non-disappearance of significant relationship between relationship to supervisors and organizational commitment ($b_2=0.16$, $p<0.05$). When job satisfaction was added to the model likewise, the fourth mediation requirement was met as aforementioned. Then, Sobel test (Preacher and Leonardelli, 2001) was conducted to determine the statistical significance of mediation effect of job satisfaction on the overall communication satisfaction – commitment linkage. The result showed that the relationship between overall communication satisfaction and commitment was partially mediated by job satisfaction ($Z=4.45$, $p<0.05$). Similarly, the Sobel test was conducted to determine the statistical significance of mediation effect of job satisfaction on the relationship to supervisor – commitment linkage. The result showed that job satisfaction was a partial mediator between relationship to supervisor and commitment ($Z=1.99$, $p<0.05$).

'Z is the sobel value calculated'.

From the fore-going, it is evident that overall communication satisfaction is a predictor of both job satisfaction and organizational commitment. Further, relationship to supervisors, top management communication and organizational integration play

significant roles in the commitment of researchers within their work environment. Similarly, when researchers are satisfied with top management communication in their organizations, they will be satisfied with job. This will enhance greater commitment to the research institutes and less willingness to quit.

Conclusion

The study revealed that educational qualification is a key determinant of both employees' satisfaction with job and their commitment to the research institutes. As confirmed by the results, researchers who possess higher certificates are more satisfied and committed to the institutes. This may result from the fact that they may be building a career as researchers or they may have a better rapport with the management of the institutes.

Further, findings of this study indicated the link between communication satisfaction and organizational commitment of researchers. It is clear from the result that effective communication creates mutual understanding between management and researchers. With this in place, a better working relationship is built between supervisors and employees of the institutes. Similarly, it is evident that the organization should regularly articulate policies, goals and objectives to workers, so as to get them abreast of activities that concern them in fostering work performance. When this is achieved better innovations can be developed by researchers to boost agricultural production. Afterwards, the nation can breathe a sigh of relief as regards food security to feed its teeming population.

The results of the study revealed job satisfaction to be a partial mediator of the relationship between overall communication satisfaction and organizational commitment. Also, relationship with supervisor was partially mediated by researchers' satisfaction with job. When managers of organizations communicate regularly with their employees and there is a good rapport between employers and supervisors, they can get feedback and offer suggestions to prevent confusion about job requirements. As such, workers performance and organizational productivity will be enhanced for national agricultural development and stability.

This research is the first research in Nigeria that was focused on the implication of aspects of communication satisfaction on commitment of researchers in agriculture institutes. The contribution of this research is that it could assist managers and policy makers in research institutes and other organizations to design those policies that will encourage personnel to work efficiently for maximum productivity. The research findings will also advance literature in organizational behavior.

Finally, the limitation of this study is that study data were obtained from six out of the ten agriculture research institutes in South-West, Nigeria and this call into question the generalizability of the findings.

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