

Employee Identification and Productivity Among Academic Staff of Nigerian Polytechnics

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Abstract. The study investigated the relationship between employee identification and productivity of academic staff in polytechnics in Nigeria. The correlational study involved 285 respondents from six polytechnics. Data were collected using a self-administered questionnaire whose validity and reliability was confirmed through Factor Analysis and Cronbach Alpha test. Descriptive analysis involved the use of means, while multiple regression was used to test the hypotheses. The results revealed that while group identification was an insignificant determinant of academic staff productivity while organisational identification was not. Thus, it was concluded that group identification was important for the performance of higher education institutions. Therefore, it was recommended that the leadership of higher institutions such as polytechnics should put in place mechanisms to promote group identification.

Keywords: Academic Staff, Employee Identification, Group Identification, Organisational Identification, Polytechnics, Productivity.

1. Introduction

Productivity is an overall measure of the ability to produce a good or service. More specifically, productivity is the measure of how specified resources accomplish timely objectives as stated in terms of quantity and quality (Yadav &

Marwah, 2015). Productivity shows whether the activity of an organisation is efficient and effective in terms of output and input (Saxena, 2014). Employee productivity is important in a way that it enhances services provision, leads to the growth of the organisation enabling competitiveness and potentially competitive advantages of organizations (Cania, 2014). Employee productivity is important for the successful performance of organisations such as polytechnics. Productive employees enable organisations to accomplish organisational goals and objectives (Raza, Anjum & Zia, 2014), effectively perform tasks (Yukl, 2008), efficiently use of resources (Rahman & Rahman, 2009), attain quality of output, workmanship, adherence to standards and customer satisfaction (Ayinde, 2014). In organisations such as polytechnics, academic staff productivity is considered in terms of teaching, preparing for class, research and scholarly activities, student research supervision, supervising internship, working with students on activities other than coursework, interacting with students outside classroom, innovation and conducting community service activities (Sullivan, Mackie, Massy & Sinha, 2012). Owing to the significance of productivity of academic staff, a number of studies (e.g. Anumaka & Ssemugenyi, 2013; Jung, 2012; Kyaligonza, 2015; Musiige and Maassen, 2015; Reed, Enders, Lindor, McClees & Lindor, 2011; Ndege, Migosi & Onsongo, 2011; Okiki, 2013; Teodorescu; 2000; Wamala and Ssembatya,

2013; Wamala & Ssembatya, 2015; Worthington & Lee, 2008) have analysed it. However, these studies suggest that effort did not extend to polytechnic institutions. This paper investigated the relationship between employee identification and productivity of academic staff.

2. Literature Review

Theoretical Review. This study was based on the Psychological Contract Theory. First introduced by Chris Argyris in 1960 and developed by Denise Rousseau in (1989). The Psychological Contract Theory explains mutual expectations between the organisation and an employee based on an unwritten agreement (Jose, 2008). The psychological contract theory explains an individual's belief in mutual obligations between that person and another party. These contracts originate when individuals infer promises that give rise to beliefs in the existence of reciprocal obligations. Such contracts are comprised of an individual's perception of mutual obligations, not a shared perception of actual obligations. Psychological employment contracts results from an individual's experiences in the organisation. Individuals form, maintain, and terminate relationships based on the belief that the benefits outweigh the costs of the relationship (Haggard & Turban, 2012). The Psychological Contract directs an individual focus from what he/ she expects to gain from the relationship to what he/ she feels is obligated to provide in the relationship. The psychological contract is an individual's belief regarding the terms and conditions of a reciprocal exchange agreement between that focal person and another party (Agarwal, 2011). Therefore, obligations in psychological employment contracts are what individuals' feel they owe the organisation and what they feel the organization owes them. What individuals' feel they owe organisations include identification, that is the perception of oneness with or belongingness to an organisation (Jones & Volpe, 2010) leading to productivity. Guided by the Psychological Contract Theory it is appropriate to suggest that employee identification leads to productivity. The Psychological Contract Theory therefore helped

in relating employee identification and productivity of academic staff.

Identification and Productivity. Identification is the perception of oneness with or belongingness to an organisation (Jones & Volpe, 2010). Organisational identification is the psychological attachment between an individual and his or her work organisation (Chughtai & Buckley, 2010). Identification involves a member defining him or herself by the same attributes that he or she believes define the organisation (Boroş, 2008). Organisational identification arises from attraction and desire to maintain an emotionally satisfying, self-defining relationship with the organisation. Organisational identification is an outcome of socialisation and acculturation process (Shahnawaz, 2012). Strong organisational identification occurs when, one's organisational identification is more salient than alternative identities, and his or her self-concept has many of the same characteristics he or she believes define the organisation as a social group. Members of an organisation are attached to it, when they incorporate the characteristics attributed to the organisation into their self-concept (Boroş, 2008). Employee identification increases employees' motivation to further the interest of the organisation. Thus, individuals who strongly identify with their organisation are more likely to seek feedback and report errors because for these employees and the perceived value of these behaviours is likely to be greater than the associated costs. This is because enactment of such behaviours would enable these employees to contribute towards the organisation's success (Chughtai, & Buckley, 2010). Therefore, when an employee has a high level of organisational Identification, he or she is willing to perform the tasks required by the organisation (Liu, Loi & Lam, 2011).

There are several scholars that have sought to relate organisational identification and academic staff productivity. For instance, Carmeli, Gilat and Waldman (2007) studied the role of perceived organisational performance in organisational identification, adjustment and job performance using employees of electronics and media industry in Israel as units of analysis.

Their results revealed that organisational identification resulted in enhancing employees' work outcome. Chughtai and Buckley (2010) assessed the effects of organisational identification on in-role job performance and learning behaviour using schoolteachers in Pakistan. Their results showed that organisational identification had a significant positive effect on in-role job performance. Kesen (2016) studied the between organizational identification with individual creativity using workers of textile companies in Istanbul. The study found out that organizational identification positively and significantly affected individual creativity. Liu, Loi and Lam (2011) linked organisational identification and employee performance of teams of employees from three automotive dealers in a city of central China. The results indicated that employees' level of organisational identification had a positive significant relationship with employee performance. Pekdemir and Turan (2014) analysed the mediating role of organisational identity complexity/ congruence on the relationship between perceived organisational prestige and in-role/ extra-role performance of blue-collar staff in public universities in Istanbul, Turkey. In their findings, they established that organisational identity positively significantly influenced employees' in-role and extra role performance or productivity.

However, as the studies suggest, they were all skewed outside Nigeria and sectors other than polytechnics.

These gaps made it imperative for this study in polytechnics in Nigeria to seek to establish whether the following hypothesis held:

H1: Employee identification is a correlate of productivity of academic staff.

3. Method

Sample. The sample comprised 285 academic staff from six polytechnics that were three federal and state owned. The sample size was attained using two-stage sampling whereby in the first stage the polytechnics were clustered according to states. In stage two, the polytechnics were stratified according to

ownership, that is federal or state owned. The polytechnics studied were as follows; State Polytechnic and Hussaini Adamu Federal Polytechnic in Jigawa State; Nuhu Bamalli State Polytechnic and Kaduna Federal Polytechnic in Kaduna; Mohammed Abdullahi Wase Federal Polytechnic and Kano State Polytechnic in Kano State; Hassan Usman Katsina State Polytechnic and federal Polytechnic Katsina in Katsina State; Kebbi State Polytechnic and Federal Polytechnic, Birnin-Kebbi in Kebbi; Sokoto State Polytechnic and Kaura Namoda Federal Polytechnic in Sokoto; Abdul Gusau Polytechnic and Federal Polytechnic Kaura Namoda in Zamfara State.

Instrument. The study being a survey involving a large number of academic staff, a self-administered questionnaire (SAQ) was used to collect data. The questionnaire was made of three sections namely A through C. Section A was on the background characteristics of the respondents with questions on the polytechnic, ownership of the polytechnic, position of the respondent in the polytechnic and terms of employment. Section B covered the items on organisational and group identification domains of employee identification (independent variable). Section C covered the dependent variable (DV) that is academic staff productivity covering five domains that were namely teaching, supervision, research and publications, innovation and community services. The questions in section A were nominal questions with appropriate responses required. The questions in sections B and C were ordinal questions scaled using the four-point Likert scale from a minimum of 1 strongly disagree (SD), 2 disagree (D), 3 agree (A) and 4 strongly agree (SD).

Data Management. Data collected were processed by coding them, entering them into the computer using the Statistical Package for Social Sciences (SPSS), summarising them using frequency tables and editing them to remove errors. Quality of the data was maintained by carrying out Factor Analysis to attain validity and testing reliability using Cronbach alpha. Using factor analysis, only items that loaded 0.50 once on the component/ factor

were adopted (Demo, Neiva, Nunes & Rozzett, 2012). Reliability was attained by calculating Cronbach alpha using SPSS. All the items attained reliability at above 0.7 which is the benchmark of Cronbach alpha (Tavakol & Dennick, 2011). The results of Cronbach alphas for the independent variables were as follows; organisational identification ($\alpha = 0.859$) and group identification ($\alpha = 0.831$). The Cronbach alphas for the dependent variables were as follows; teaching ($\alpha = 0.873$), supervision ($\alpha = 0.763$), publication ($\alpha = 0.811$), innovation ($\alpha =$

0.809) and community service ($\alpha = 0.930$). The data analysis involved descriptive and regression analyses. Descriptive analysis involved percentages from the frequency tables and the mean. Regression analysis involved building a predictive model by regressing the numerical index of the dependent variable that is academic staff productivity on the numerical indexes of the independent variables (IVs), namely organisational identification and group identification. Data analysis was done using the Statistical Package for Social Sciences (SPSS).

4. Findings

Demographic Characteristics. The data on demographic characteristics of the respondents of the study in Table 2 show that the modal percentage (24.6%) was of academic staff from Kaduna Polytechnic Kaduna State, 55.8% academic staff from federal polytechnics, 18.6% principal lecturers and 90.4% academic staff employed on permanent terms.

Table 1. Demographic Characteristics of the Respondents

Item	Categories	Frequency	Percent
Polytechnic	Kaduna Polytechnic Kaduna State	70	24.6
	Federal Polytechnic Kazaure Jigawa State	59	20.7
	Katsina State Polytechnic	47	16.5
	Kano State Polytechnic	39	13.7
	Sokoto State Polytechnic	40	14.0
	The federal Polytechnic Kaura Namoda	30	10.5
	Total	285	100.0
Ownership of the polytechnic	Federal	159	55.8
	State	126	44.2
	Total	285	100.0
Position of appointment	Assistant Lecturer	47	16.8
	Lecturer III	32	11.5
	Lecturer II	28	10.0
	Lecturer I	41	14.7
	Senior lecturer	46	16.5
	Principle Lecturer	52	18.6
	Chief lecturer	33	11.8
	Total	279	100.0
Terms of employment	Permanent	254	90.4
	Probation	6	2.1
	Contract	16	5.7
	Part-time	5	1.8
	Total	281	100.0

The Dependent Variable: Employee Productivity. The dependent variable was divided into aspects namely; teaching, supervision, publications, innovation and community services. The items were scaled using the four-point Likert scale ranging from a minimum of 1 for the worst case scenario

(strongly disagree) to a maximum of 4, which is the best case scenario (Strongly agree). Table 2 (a) illustrates that for teaching, all the nine items had means of about 3, and an overall mean of about 3, which on the scale used corresponded to “agree” and hence a good overall self-rating of the respondents on teaching. Table 2 (b) also

illustrates that for supervision, all the four items had means of about 3, and an overall mean of about 3, which on the scale used corresponded to “agree” and hence a good overall self-rating of the respondents on supervision. Table 2 (c) indicates that for publications, all the seven items had means of almost 3, and an overall mean of about 2.90, which on the scale used corresponded to “agree” and hence a good overall self-rating of the respondents on publications. Table 2 (d) indicates that for

innovation, all the four items had means of about 2, and an overall mean of about 2, which on the scale used corresponded to “disagree” and hence a poor overall self-rating of the respondents on innovation. Table 2 (e) reveals that for community service, all the eight items had means of about 3, and an overall mean of about 3, which on the scale used corresponded to “agree” and hence a good overall self-rating of the respondents on community service.

Table 2: Means on Employee Productivity Constructs

	Mean	Overall mean
a) Teaching Productivity		
I offer a simple, clear, concise language during lectures.	3.19	3.23
I keep the interest of student alive during lessons	3.42	
I am compassionate and tolerant to students to some extent.	3.45	
I offer a sufficient number and quality of course related resources.	3.35	
I have consultation time to attend to the students.	3.20	
I facilitate my teaching on time	3.08	
I do extra time of teaching if it is necessary	3.21	
I finish my syllabus on time.	3.14	
b) Supervision Productivity		
Whenever my supervisees need me I am available	3.24	3.22
I help students to complete their dissertations/ research project within the stipulated time	3.30	
I motivate my students to work hard on their studies.	3.46	
visit students on industrial assignment/attachment	2.90	
c) Publication Productivity		
I have published locally and international	3.04	2.90
I have been able to produce an occasional paper.	3.12	
I have published a paper in conference proceedings locally and internationally	3.11	
I have produced a journal article	3.33	
I have written a technical report	2.95	
I have written a book chapter	2.33	
I have authored a scientific peer-reviewed bulletin	2.48	
d) Publication Innovation		
I have patented some innovations I made.	2.19	2.26
I have made original products in the course of my duties with the students	2.43	
I spend time trying to create products invest machineries for industries.	2.21	
My products produced while working in this polytechnic are already in the market	2.21	
e) Community Service		
As a member of staff of this polytechnic I participate in community events	3.33	3.26
I have participated in community improvement programmes as a member of this polytechnic	3.31	
I am involved in offering training sensitisation and mobilisation services to community	3.10	
I am involved in promoting the civic duties of the community	3.07	
I am Involved in collaborations with communities and stakeholders.	3.02	
As a member of staff, I participate in community activities	3.24	
As a member of staff I am involve in training the youth in community activities.	3.04	
As a member of staff, I personally make financial contributions to the community.	3.12	

The independent Variables. The independent variables in the study were two constructs that define employee identification, namely organisational identification and group identification. Tables 3 (a) and

3(b) show that for both organisational identification and group identification each with 9 items respectively had means of approximately 3. On the scale used, the means corresponded to “agree.” Thus, the means indicated a good overall rating identification in the polytechnics.

Table 3: Means on Employee Identification Constructs

a) Organisational Identification	Mean	Overall mean
I am very concerned about the success of this polytechnic	3.68	3.45
I like working in this polytechnic	3.48	
I only want to hear others talk good about this polytechnic	3.01	
I am proud to be a member of this polytechnic	3.54	
This polytechnic is like a family to me.	3.35	
When I make job-related decisions, I think about how I will affect this polytechnic	3.34	
I am willing to put in extra effort in order to help this polytechnic to succeed.	3.63	
I identify closely with polytechnic	3.48	
I feel much loyalty to this polytechnic	3.51	
b) Group Identification	Mean	Overall mean
I am concerned about the success of all staff in this polytechnic	3.15	3.12
I like working colleagues in this polytechnic	3.04	
I only want to hear others talk good about my colleagues in this polytechnic	3.11	
I am proud to be a member of this polytechnic	3.25	
This polytechnic is like a family to me.	2.88	
When I make job-related decisions, I think about how I will affect my colleagues	3.16	
I am willing to put in extra effort in order to help colleagues be successful.	3.25	
I identify closely with colleagues in this polytechnic	3.13	
I feel much loyalty to fellow staff in this polytechnic	3.09	

Statistical Model for Prediction Employee Productivity using Employee Identification. To establish whether employee identification determined employee productivity of the academic staff in polytechnics, the dependent variable namely, employee productivity was regressed on the independent variable employee identification. The results are as in Table 4.

Table 4: Regression Model on Academic Staff Productivity and Employee Identification

Employee Identification	Standardised Beta	Significance
	β	p
Organisational Identification	0.147	0.060
Group identification	0.157	0.045

Adjusted R² = 0.066
 F = 9.379, p = 0.000

Dependent Variable: Academic Staff Productivity

The results in Table 4.59 show that, the two employee identification explained 6.6% of the variation in academic staff productivity (adjusted R² = 0.066). This means that 93.4% of the variation was accounted for by other factors not considered under this model. The regression model was significant (F = 9.379, p = 0.000 < 0.05). While both organisational and group identifications were positive correlates of academic staff productivity, only group identity was a significant correlate ($\beta = 0.147$, p = 0.045) that determined academic staff

productivity while organisational identification ($\beta = 0.157$, p = 0.060) was not.

5. Discussion

Employee identification is a correlate of productivity academic of staff in Polytechnics. This hypothesis conjectured that employee identification was a correlate of productivity academic of staff in polytechnics. The hypothesis was studied basing on the two aspects of organisational and group

identification. The study established that organisational identification was an insignificant determinant of academic staff productivity. This finding was inconsistent with previous scholars. For instance, Carmeli et al. (2007) indicated that organisational identification resulted in enhanced employees' work outcome. Chughtai and Buckley (2010) revealed that organisational identification had a significant positive effect on in-role job performance. Kesen (2016) found out that organizational identification positively and significantly affected individual creativity. Liu et al. (2011) found out that employees' level of organisational identification had a positive significant relationship with employee performance. Further, Pekdemir and Turan (2014) revealed that organisational identity significantly positively influenced employees' in-role and extra role performance or productivity. The results of this study were controversial in that they were contrary to findings of the previous scholars.

With respect to group identification and academic staff productivity, the study revealed that group identification was a significant determinant of academic staff productivity. This finding was consistent with the findings of previous scholars. For instance, Carmeli (2007) indicated that identification resulted in enhanced employees' work outcome while Chughtai and Buckley (2010) revealed that identification had a significant positive effect on in-role job performance. Kesen (2016) indicated that organizational identification positively and significantly affected individual creativity. Liu et al., (2011) showed that identification had a positive significant relationship with employee performance. Pekdemir and Turan (2014) revealed that organisational identity significantly positively influenced employees' in-role and extra role performance or productivity. The above being consistent with those of previous scholars, it means that employee identification is a determinant of staff productivity.

6. Conclusion

Summary. Extant literature suggests that employee productivity contributes to performance of organisations. Productive

employee accomplish organisational goals and objectives, effectively perform of tasks, use resources efficiently, have quality of output, workmanship, adherence to standards and lead to customer satisfaction. This paper was a survey on employee productivity in polytechnic in North Western Nigeria with the purpose linking employee productivity with two employee identification domains, namely organisational identification and group identification. In this endeavour, the study closed gaps as it was carried out in the context of polytechnics in the context of Africa that previous scholars had largely ignored. The study did not support the hypothesis that employee organisational identification was a positive significant determinant of employee productivity. However, it revealed that and emphasised that group identification was a positive and significant determinant of employee productivity.

Implication. The findings of this study have are of practical significance to the leadership of higher education institutions in Nigeria such as polytechnics. Specifically, the finding that group identification is a positive significant determinant of employee productivity suggests that it is important for the performance of higher education institutions. Therefore, it is recommended that the leadership of higher institutions such as polytechnics should put in place mechanisms to promote group identification. On the other hand, the finding that organisational identification was a positive but insignificant determinant of employee productivity points to the factor that it is not the most probable prerequisite for the productivity of employees.

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