



Nexus between Students' Personnel Services and Academic Achievement in Secondary Schools, Kwara State, Nigeria: The Moderating Role of Supervision

Yusuf Suleiman

Al-Hikmah University, Kwara State, Nigeria

Zahyah Hanafi

Geomatika University, Kuala Lumpur, Malaysia

Muhajir Thanslikan

Universitas Dr. Soetomo, East Java, Indonesia

Abstract

The importance of school services in education system cannot be underestimated because its availability helps to implement the curriculum content to achieve the objectives of education. Based on the foregoing premise, the study examined the relationship between supervision, students' personnel services and academic achievement. Quota sampling technique was adopted to select 379 students for the study. An instrument titled 'School Services and Supervision Questionnaire (SSSQ)' was used to collect relevant data for the study. Also, secondary data on students' subjects were obtained from schools to measure students' academic achievement. Data was analyzed with the use of Statistical Package for Social Sciences and Partial Least Square Software. Findings indicate that library, health, guidance and counseling, and extracurricular services positively influenced students' academic achievement. On the contrary, it was found that admission services do not influence students' achievement. On the moderating effect of principal supervision, findings revealed that principal supervision moderates the connection between extracurricular, guidance and counseling services and students' academic achievement. The study concludes that the importance of supervision of school services cannot be underestimated, hence the need for constant supervision of services by the principals. Lastly, the study recommends that adequate budgetary allocation should be made for the provision of school services in secondary schools. Specifically, budgetary allocation of resources to schools should be in line with the needs and aspiration of the students.

Keywords: Structural Equation Modeling, Students' Personnel Services, Supervision, Academic Achievement

JEL: Classification: I1, I2

Paper Classification: Research Type

Introduction

Education, whose importance cannot be undermined, is globally seen as a powerful tool for developing individual. The manpower development of a nation depends on laying the solid education foundation (Asare & Nti, 2014). Education aims at socializing people in order to explore their talents for them to contribute their own quota to the society they belong to (David & Najwan, 2014). Secondary education is provided for pupils that have just finished primary school, it is a well-known fact that primary school cannot provide the needed skills, numeracy and technical aspect of education for a child; such things can always be found in secondary school environment. The aim of secondary education is thus to ensure that individuals live a useful life in the society, and to prepare them for more rigorous life in higher institution (Jansen, Vervoort, Visser, Reijneveld, Kocken, de Lijster, & Michaud, 2019; Mathew, 2013).

The foregoing purposes of secondary education cannot be actualized without the existence of students' personnel services in the school system. Students' personnel services are variety of services that are provided by the school for students to assist them in their school activities. It encompasses such services that have direct impact on students which cannot be underestimated (Francis, Lance & Lietzau, 2010). These services are very sacrosanct in the education system and its importance cannot be underestimated. The services include accommodation, health, admission, transportation, guidance service, etc. (Lewis, 2010). Ebirim, Ochai and Obasi (2014) are of the view that student' personnel services serve as the input in the educational system and they are the students' needs which will help them to actualize their educational dreams. In support of this, scholars are of the view that school cannot function without the services and its availability determines the success of the educational system. The services are mostly needed in the school system and it is considered as the major input in a school setting (Bjørnsen, Espnes, Eilertsen, Ringdal & Moksnes, 2019; DuPaul, Chronis-Tuscano, Danielson & Visser, 2019; Gallant & Zhao, 2011; Jeffries, McCoy, Effen, Chiarello & Villasante Tezanos, 2018; Kulkarni & Sullivan, 2019).

Alani, Okunola and Subair (2010) opined that the issue of students' personnel services in Nigerian secondary schools has been a public discourse. It is often said that these services are not well provided in secondary schools. This has therefore been an impediment to the academic fulfillment of the students in schools, and most secondary schools in Nigeria have witnessed this inadequate delivery of student services, which is also perceived as one of the factors affecting the growth of education. Corroborating the foregoing statement, Arinde (2010), Ebirim, Ochai and Obasi (2014) and Okoroma (2008) are of the view that providing students' services in Nigerian secondary schools has been a huge task for the government at all levels of education. This lack of student personnel services has been attributed to the deteriorating standard of education in Nigeria. This has been a cog to the progress of education in Nigeria. The disheartening performance of the secondary school students' examinations could also be attributed to the impediments.

More so, the poor performance of secondary school students is evident in Nigerian schools; this is due to numerous problems ranging from inadequate or lack of school facilities and uncondusive school environment. The reason could also be likened to improper management of school on the part of the school organization, who is the guardian of the school facilities (Okendu, 2012; Usman, 2015). To this end, the study investigates the link between supervision, students' personnel services and academic achievement in secondary schools.

Literature Review

Several empirical studies (Adnet, McCaig, Slack & Bowers-Brown, 2011; Alani, Okunola & Subair, 2010; Arinde, 2010; Gallant & Zhao, 2011; Lance and Hofschire, 2012; Lewis, 2010;



Okoroma, 2008; Valdez, Lambert, & Lalongo, 2012) have proposed diverse factors as antecedents of academic achievement. Specifically, students' personnel services are considered as an essential contributor in determining the academic success in the school system because they complement the teaching and learning process in the classroom (Mackenzie, Murray & Stark, 2011). In addition, research to date has established some of the dimensions of students' personnel services as factors that have been studied to predict academic achievement; those studies have measured students' services with one to three dimensions. There are authors with one or two dimensions of students' personnel services (Bradley, Nowlan, Vajcner, Cushon & Cripps, 2012), and those with two or three dimensions (Alani, Okunola & Subair 2014; Ebirim, Ochai & Obasi, 2014; Lewis, 2010; Ramasubramaniam, Nair & Angeline, 2018).

For example, Lewis (2010) examined students' personnel services using three dimensions of the services (guidance, health and psychology) and its effect on student success in the United States of America. The study found low connection between students' personnel services and academic performance. He discovered that there was inadequate provision of students' services in the school, which was the factor affecting the number of drop out among students in the schools. The study suggests that further studies should be carried out empirically on other aspects of school services to see whether similar results would be found. In the same vein, Ebirim, Ochai and Obasi (2014) studied the relationship between student personnel services (academic service) through the application of information and academic performance in schools in Nigeria and found negative relationship between academic services and student success. It was concluded that future studies should, therefore, examine other dimensions of the school services.

Alani, Okunola and Subair (2014) examined the link among library services and academic success in secondary schools in Nigeria. It measured personnel services as a uni-dimensional variable. It was found that inadequate provision of the service was responsible for poor academic performance and concluded that further studies are needed to determine whether similar results would be found or not. Similarly, studies on the nexus between health service and academic performance established positive relationship between health services and school achievement (Taras & Potts-Datema, 2005; Toma, Gabriel & Agaba, 2014), while the research conducted by Walsh and Murphy (2003) established that adequate provision of health services means ensuring the well-being of student in the school.

Anagbogu, Nwokolo, Anyamene, Anyachebelu and Umezulike (2013) examined the relationship between school counseling services and academic success and established a significant relationship between counseling and academic success. Studies of Brown and Trusty (2005) and Arinde (2010) established counselling as determinant of students' success. They are of the view that proper counseling services for students will help to ensure their academic success. Thus, counselling is needed to solve the various challenges that students are facing in the school. Future studies were, however, recommended by the authors to focus on other aspect of the services which include career counseling, digital library among others. In the same vein, Nyamwange, Nyakan and Ondima (2012) investigated counseling services as determinant of school success and concluded that guidance and counseling services influenced students' academic success.

Studies suggest that principal's responsibility in the management of school facilities entail ensuring that the provided school facilities are properly managed to the objectives of education in Nigeria (Okendu, 2012; Usman, 2015). Buttressing this claim, Loius and Gordon (2006) found that principal ensured that resources allocated to education are used judiciously used to achieve the goals of education. The research conducted by Oberman (2015) established that principals

play a strategic role in coordinating the activities. These activities consist of planning, directing, financing and supervising. Meanwhile, studies revealed that principal supervision has been discussed to be a potential variable that can predict students' success in school (Bormann, 2015; Horchwater & Thompson, 2012; Oberman, 2005; Usman, 2015). Supervision involves guiding and directing the inputs in the school system to achieve school objectives. Principal's Supervision is an important variable that plays a huge role in supervising the school inputs (Onuma, 2015; Usman, 2015). For example, studies have established that effective principal supervision is associated with student academic achievement (Bormann, 2015; Onuma, 2015). A study conducted by Okendu (2012) on supervision, found a high correlation between principal's supervision and school facilities. The study reports that principal's supervision rests on the principal's supervisory role in maintaining school services for educational development. Horchwater and Thompson (2012), Louis and Gordon (2006) and Wanzare (2012) all attested to the fact that the principal supervision is a correlate of academic accomplishment. They are of the view that effective supervision is akin to realization of school objectives. Therefore, principal supervision is included in this study to increase the link among students' personnel services and academic achievement.

Student development theory, leadership theory and agency model theory of supervision offer some theoretical explanation for better understanding on the nexus between supervision and school services. First, students' development theory postulates that there are certain needs that should be provided for students in the school to improve their knowledge for them to do well. It is assumed that students' needs are influenced by their environment and genetics (Astin, 1984). Second, leadership theory explains that some leaders are concerned with planning and how to get the subordinates do the job in an efficient way. This leadership style tends to focus much on how work is going to be carried out with hindrance in the best possible way. The leader that uses this style gives more priority to the job than subordinates which in turn help the leader to achieve success (Falender & Shafranske, 2004; Hersey, Blanchard & Johnson, 1998; Offermann, Kennedy Jr. & Wirtz, 1994). Third, agency model theory of supervision centered on to whom the supervisory task is delegated to coordinate, direct, evaluate, and enhance the task performance of the subordinates. In carrying out this task, the supervisor implements some administrative interactions with the subordinates to establish cordial relationship with them (Hate & Kennedy, 2000; Mette, Range, Anderson, Hvidston & Nieuwenhuizen, 2015; Powell, 1993).

Taken together, it can be said that past studies focused on one or two dimensions of students' personnel services (i.e., guidance and counseling, health, library). Thus, the attention of the present study thus is to extend the extant literature on students' personnel services by measuring it with five dimensions (admission, library, health, guidance and counseling, and extracurricular services).

Research Questions

1. What is the level of students' personnel services, principal supervision and academic achievement?
2. Is there any relationship between students' personnel services and academic achievement?
3. Does principal supervision moderate the link amongst students' personnel services and academic achievement?

Research Objectives

1. To examine the level of students' personnel services, principal's supervision and academic achievement.

2. To examine the relationship between students' personnel services and academic achievement.
3. To assess the moderating role of principal supervision on the nexus between students' personnel services and academic achievement.

Methodology

Research Design and Population

The research design used for the study is survey type. Specifically, survey is chosen to assess the constructs of the study namely students' personnel services, principal supervision and academic achievement (Creswell, 2009). The population consists of 27, 883 senior secondary students in Kwara State, Nigeria.

Sampling Techniques

Based on population of 27, 883 students, a sample size of 379 is thus needed for this study (Krejcie & Morgan, 1970). Sampling technique is described as the method that is used to draw out the sample size of the population. In order to ensure that equal distribution of students, both stratified and simple random techniques were adopted to select 379 students in all the three (Central, South and North) senatorial districts of Kwara State.

Measurement

(1) Independent Variable

In this study, students' personnel services mean those services that are necessary for students' improvement in school. The five dimensions of students' personnel services in this study are explained below.

- (a) **Admission Services:** It means the services that school offer to prospective applicants who want to be enrolled. It is also a systematic process of admitting qualified students who had satisfied the entrance requirements designed by the school. Admission items were modified from the studies conducted by Adnet et al. (2011) and Okoroma (2008).
- (b) **Extracurricular Services:** These are the services (quiz and debate competition, football, inter-house sports, volleyball, basketball etc.) that are rendered to students so as to enable them to have fun and enjoy social life after academic activities in the school. Extracurricular services were measured using the items taken from the studies of work of McCaughn (1999) and Mestapeltan and Pukkinin (2014).
- (c) **Guidance and Counseling Services:** These are services that promote personal, social and career development of students. Guidance and counseling items were taken from the work of Nyamwange et al. (2012) and Parsad et al., (2003).
- (d) **Health Services:** Health services are the services that contribute to the maintenance and improvement of the health of students. Health services were measured by using the items revised from the studies of Parsad et al., (2003) and Toma et al., (2014).
- (e) **Library Services:** These are the services that stimulate students to develop good habit of reading. it provides students information and expose them to learning experiences that are related to classroom events. Library services items were adapted from the work of Arinde (2010).

(2) Moderating Variable

Principal Supervision: It means the efficient and effective supervision of the services (admission, extracurricular, guidance and counseling, health and library) provided in the school with a view to attaining the objectives of education. Principal supervision was measured with the adapted items from the work of McCaughn (1999) and Mestapeltan and Pukkinin (2014).

(3) Dependent Variable

Academic Achievement: Academic achievement is the determinant of success or failure of students in the school. It is also a parameter for measuring the effectiveness of school. In order to measure academic achievement, results in specific subjects (Mathematics, English, Economics, Biology and Agricultural Science) were used to measure academic achievement.

To ensure validity of the instrument, it was given to experts in the field of educational management and their corrections were affected as suggested. To ascertain the reliability of the modified instrument, a pilot study was conducted using 80 students in one secondary school. The Cronbach's alphas of the pilot study are admission services (0.82); extracurricular services (0.84); guidance and counseling services (0.87) health services (0.85); library services (0.89); principal supervision (0.92) and academic achievement (.83) (Creswell, 2009).

Data Collection and Analysis Procedure

Before administering the questionnaires, permission was sought from the principals of the visited schools. After that, questionnaires were administered with the assistance of two teachers who helped in explaining the contents of the questionnaire to the respondents. All the administered questionnaires were collected from the respondents within three months. After that, we used Smart PLS software 2.0 M3 (World, 1974) for the testing of the connection that exist among the variables. The software was considered appropriate for the study as it is said to be more efficient and effective when analyzing a multivariate study. Before the use of PLS, SPSS was used to screen and perform descriptive analysis of the data while PLS was embraced to assess the connection between independent, moderating and dependent variables.

Analysis

Construct	Number	Mean	Standard Deviation
AA	379	3.547	.438
AS	379	2.999	.690
ES	379	3.453	.537
GS	379	3.639	.411
HS	379	3.461	.543
LS	379	3.422	.566
PS	379	3.457	.534

Assessment of PLS-SEM Model Results

In the light of new improvement of the PLS path analysis, Henseler, Ringle and Sinkovics (2009) recommended that researchers should use a two-step approach to evaluate as well as report the outcome of the results of Partial Least Square (PLS- SEM Path Models). The two-step approach

used in this study encompasses (i) a measurement model assessment, and (ii) a structural model assessment.

Stage 1: Measurement Model

As supported by scholars in the field of social research, in assessing a reflective measurement model, it encompasses knowing the individual item reliability, the internal consistency reliability, the content validity, the convergent validity, and lastly, the discriminant validity. Thus, the figure 1 shows the measurement model of the study (Henseler et al., 2009).

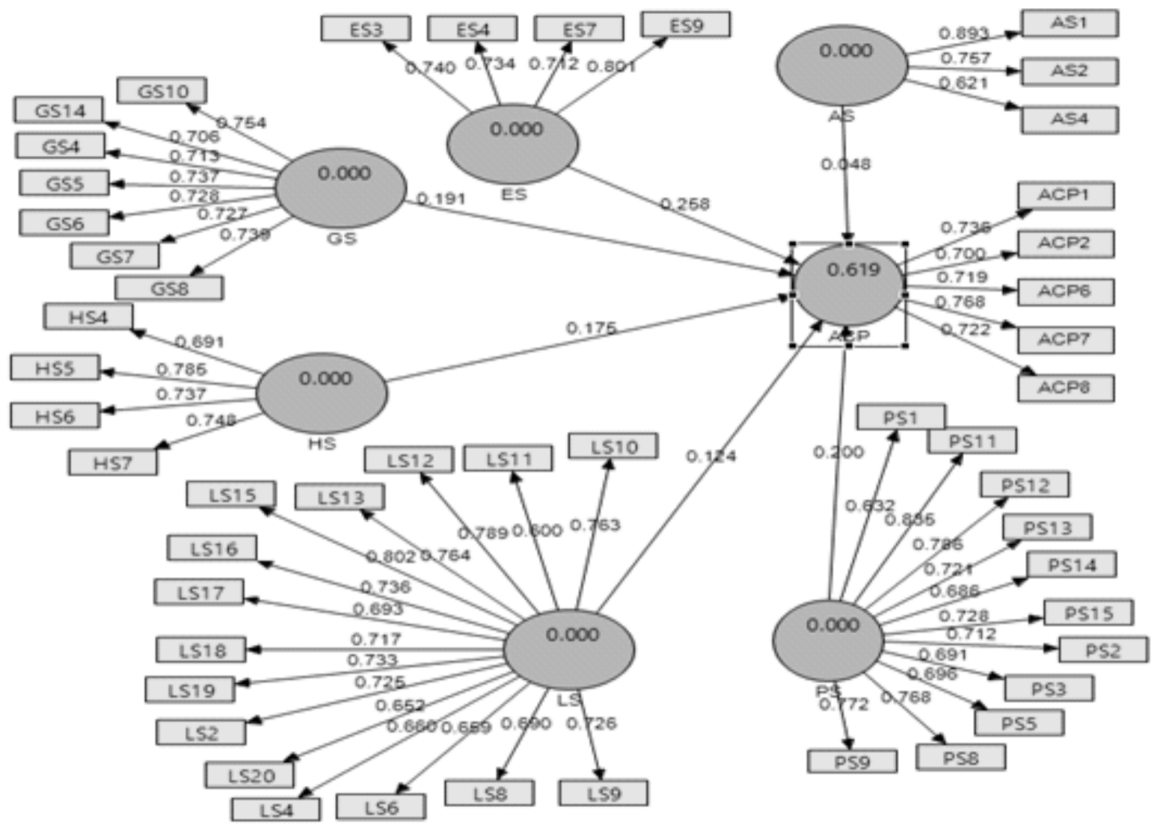


Figure 1 Measurement Model Output using PLS

Note: Variables are coded in the study (LS: Library Services; HS: health Services, G&C: Guidance and Counselling Services, ES: Extracurricular Services; AS Admission Services; PS: Principal Supervision; AA: Academic Achievement)

Individual Item Reliability

Individual item reliability was examined by outer loadings for each of variable or construct’s measure (Hair et al., 2014). In line with the rule of thumb as suggested by Hair et al., (2014), that items which have loadings between 0.40 and 0.70 can be retained. However, the researcher discovered in this present study that of 101 total items, 52 were deleted because they had loadings that are below the threshold of 0.40. So, the complete model had 49 retained items simply because their loadings fell between the minimum of 0.600 and maximum of 0.893. Thus, the study model indicates that items are above the threshold of .40, which is the loading benchmark.

Internal Consistency Reliability

Internal consistency reliability is another criterion that can be measured in a measurement model. Scholar (Bijttebier, Delva, Vanoost, Bobbaers, Lauwers & Vertommen, 2000) have defined internal consistency reliability as the extent to which perfect items on a particular subscale measures the similar concept. Due to the foregoing drawback, it is imperative to use a different measure of internal consistency reliability, which is known as composite reliability (Hair et al., 2012). The study adopted the use of composite reliability coefficient to ensure the internal consistency reliability certainty of the adopted measures. The justification for using composite reliability instead of Cronbach's alpha is that, firstly, composite reliability gives a less prejudiced reliability estimation than Cronbach's coefficient due to the fact that the latter assumes that all items equally contribute to its variable or construct without taking into consideration the real contribution of the individual loadings (Gotz, Liehr-Gobbers, & Krafft, 2010).

Table 2: Loadings, Composite Reliability and AVE

Construct	Code	Loadings	AVE	Composite Reliability	Cronbach's Alpha
AA	AA1	.736	.531	.850	.780
	AA2	.700			
	AA6	.719			
	AA7	.768			
	AA8	.722			
AS	AS1	.893	.585	.805	.648
	AS2	.757			
	AS4	.621			
ES	ES3	.740	.559	.835	.737
	ES4	.734			
	ES7	.712			
	ES9	.801			
GS	GS10	.754	.532	.888	.854
	GS14	.706			
	GS4	.713			
	GS5	.737			
	GS6	.728			
	GS7	.727			
	GS8	.739			
HS	HS4	.691	.549	.829	.725
	HS5	.785			
	HS6	.737			
	HS7	.748			
LS	LS10	.763	.513	.940	.932
	LS11	.600			
	LS12	.789			
	LS13	.764			
	LS15	.802			
	LS16	.736			

Cont'd....

	LS17	.693			
	LS18	.717			
	LS19	.733			
	LS2	.725			
	LS20	.652			
	LS4	.660			
	LS6	.659			
	LS8	.690			
	LS9	.726			
PS	PS1	.632	.535	.927	.912
	PS11	.835			
	PS12	.786			
	PS13	.721			
	PS14	.686			
	PS15	.728			
	PS2	.712			
	PS3	.691			
	PS5	.696			
	PS8	.768			
	PS9	.772			

Convergent Validity

Convergent validity, according to Hair et al., (2012), denotes the extent to which a measure positively correlates with a measure of the alternative of the similar variable. To assess the convergent validity of the present study, the AVE of the constructs was examined, as suggested by Fornell and Larcker (1981). In achieving enough convergent validity of the model, Chin (1998) suggested that the average variance extraction (AVE) of each of the construct should be a minimum of 0.50 and above. Based on Chin's (1998) recommendations, the average variance extracted values (as displayed in Table 3) revealed high loadings (>0.50) on their constructs, displaying the convergent validity adequacy.

Discriminant Validity

Fornell and Larcker's (1981) benchmark method was adopted to determine the discriminant validity of the model. Reason for adopting it is that it makes a comparison in between the square root of average variance extraction (AVE) values, with the variable correlations. According to Hair et al., (2011), the main logic of this method is built on the ground that a variable shares more difference with its allied indicators than with any other variable. Additionally, Chin's (1998) criterion was adopted; this was used to make a comparison of indicator loadings with other indicators that are reflected as contained in the cross-loadings. In evaluating the discriminant validity, it was recommended by Fornell and Larcker (1981) that the average variance extraction (AVE) should be more than correlations between latent constructs. As shown in the Table 2, the values of the AVE range between .513 and .559, which means that values are acceptable values. Meanwhile, constructs correlations were then compared with AVE's square root (boldface values). Also, the Table 3 depicts the square root of the AVE were more than latent constructs links, meaning that discriminant validity is adequate (Fornell & Larcker, 1981).

Table 4: Hypotheses Testing for Direct and Moderating Relationships

Hypothesis	Relationship	Beta value	Std. Error	T value	P value	Decision
H1	LS -> AA	.124	.061	2.023	.022**	Supported
H2	GS -> AA	.191	.052	3.700	.000***	Supported
H3	HS -> AA	.175	.066	2.661	.004***	Supported
H4	AS -> AA	.048	.038	1.264	.104	Not supported
H5	ES -> AA	.258	.066	3.894	.000***	Supported
H6	LS * PS -> AA	-.014	.092	.150	.441	Not Supported
H7	GS * PS -> AA	.173	.068	2.528	.006***	Supported
H8	HS * PS -> AA	.039	.063	.614	.270	Not supported
H9	AS * PS -> AA	-.043	.052	.836	.202	Not supported
H10	ES * PS -> AA	-.210	.102	2.066	.020**	Supported

Note: ***Significant at 0.01 (1-tailed), **significant at 0.05 (1-tailed), *significant at 0.1 (1-tailed).

Testing Moderating Effect of Principal Supervision

In testing the moderating effect of supervision, we used product indicator process by using Structural Equation Modelling (PLS-SEM) with a view to detect as well as to estimate the strength of the moderating role of principal supervision (Henseler & Chin, 2010; Henseler & Fassott, 2010). In this study, the term product approach is considered suitable simply because the moderating variable is a continuous variable (Rigdon, Schumacker, & Wothke, 1998). Henseler and Fassott (2010) opined that given the product term method, results are usually superior or equal to those with comparison method; the term product approach is always recommended. Meanwhile, product indicator method was used to test the moderating effect of principal supervision and this demand that product terms amongst indicators of the independent variable and the moderator's indicators must be created. Thus, the product terms were used as pointers of the interaction in the model (Kenny & Judd, 1984). More so, to determine the strength of the moderator in this study, Cohen's (1988) guidelines were used for knowing the effect size. In this study, ten hypotheses were formulated. Hypotheses 1,2,3,4 and 5 are meant for direct association between students' personnel services and academic achievement while 6,7,8,9 10 are for moderating hypotheses, which had been reported.

Discussion

In line with the research question one, findings revealed that the mean for the variables ranged between 2.999 and 3.639. Specifically, mean and standard for academic achievement were Mean=3.547, SD= 0.438 respectively. This means that the students' academic achievement is relatively high. Table 4.7 also revealed that perception of respondents on library services seems to be high, mean and standard deviation were Mean = 3.422, SD = 0.566. Likewise, the perception of respondents on guidance and counselling services is high (Mean=3. 639, SD= 0.411). For health services, respondents have a high perception of health services (Mean=3. 461, SD= 0.543). Furthermore, respondents have a moderate perception of admission services, with (Mean= 2.999, SD=0.690). On the contrary, the mean and standard deviation for extracurricular services were Mean=3. 453, SD= 0.537. This shows that the perception of respondents on extracurricular services is high. For principal's supervision, the respondents have a high perception, with the mean and standard deviation Mean=3. 457, SD=0.534. In synopsis, the descriptive statistics for latent variables indicate high academic achievement, the moderate perception of admission services, and

high perception of extracurricular services. Also, guidance and counselling and health services had high perception, while library services and principal's supervision were also high. The finding is in congruent with the study conducted by Bradley et al. (2012) and Ludeman (2002) who believe that a well-provided service makes students comfortable, and this contributes immensely to the efficiency and peace of mind of the student. They are of the view that if numerous school services are present, it will lead to high level of social-emotional advancement and demystifying academic activities for students.

In consonance with the second research question of this study, there are five direct hypotheses formulated on the association between students' personnel services and academic achievement. Specifically, the five dimensions of students' personnel services include admission, extracurricular, guidance and counselling, health, and library services. They were predicted to be positively related to academic achievement. First, hypothesis 1 postulated that there will be a positive relationship between library services and academic achievement of students in school. Result showed that the hypothesis that states that there will be a positive link between library services and academic achievement of students is supported ($\beta = .124$, t value = 2.023, p value < .022). Second, hypothesis 2 postulated that there will be a positive correlation between guidance and counselling services and academic achievement. Interestingly, it means that the hypothesis that stated that there will be a connection between guidance and counselling services and academic achievement is supported in this study ($\beta = .191$, t value = 3.700, p value < .000). Third, hypothesis 3 predicted that there will be a positive relationship between health services and academic achievement of students in school. Result reveals that the hypothesis that stated that there would be a positive correlation between health services, and academic achievement of students is supported ($\beta = .175$, t value = 2.661, p value < .004). Fourth, hypothesis 4 stated that admission service was positively related to academic achievement. The finding showed a negative affiliation between admission services and academic achievement ($\beta = -.048$, t value = 1.264, p value < .104), it thus means that the hypothesis is not supported in this study. Five, hypothesis 5 predicted that there will be a positive correlation between extracurricular services and academic achievement. The result showed a positive association between extracurricular services and academic achievement ($\beta = .258$, t value = 3.894, p value < .000), which indicates that the hypothesis is supported. The foregoing findings especially in hypotheses 1, 2, 3 and 5 is similar to the study conducted by Anagbogu, Nwokolo, Anyamene, Anyachebelu and Umezulike (2013) who confirmed that availability of library, guidance and counselling, health and extracurricular services are a necessity, and the more students have access to it, the better they perform in their examinations. On the contrary, the negative finding in hypothesis 4 on admission services is in congruence with the research carried out by Okoroma (2008) who opined that having gone through the admission process, it does not necessarily translate to academic success.

In order to provide answer to third research question of the study, five research hypotheses were predicted and tested via Partial Least Square (PLS-SEM) (i.e., H6, H7, H8, H9 and H10). Firstly, it was hypothesized (hypothesis 6) earlier that principal supervision moderates the connection between library services and academic achievement in school. On the contrary, the PLS path modeling results showed that the hypothesis was not supported. Secondly, regarding the hypothesis 7 which states that principal supervision moderates the link between guidance and counselling services and academic achievement. Expectedly, the PLS path modeling results indicate that principal supervision moderates the connection between guidance and counselling services and academic achievement statistically (Conga & Kanungo, 1987; Falender & Shafranske, 2004; Haynes, Corey, & Moulton, 2003; Hersey, Blanchard, & Johnson, 1998; Offermann, Kennedy Jr & Witz, 1994; Powell, 1993). Thirdly, it was hypothesized that principal supervision moderates

the connection between health services and academic achievement. Contrary to the anticipated results, the PLS analysis results reveal that the hypothesis is not supported (Taras et al., 2004; Valdez, Lambert, & Lalongo, 2012). Fourthly, it has been predicted (hypothesis 9) earlier that principal supervision moderates the association between admission services and academic achievement. Surprisingly, results revealed that the hypothesis is not supported even though there could be possible reasons in which the hypothesis could not be supported (Fan et al., 2013), because supervision in school did not necessarily translate into school achievement (Bormann, 2015; Mette et al., 2015). Also, it has been stated earlier in the hypothesis that principal supervision moderates the connection between extracurricular activities and academic achievement. Interestingly, the PLS modeling results show that principal supervision moderates the connection between extracurricular services and academic achievement (Hate & Kennedy, 2000).

Taken the above findings together, the three objectives of the study have been answered through the findings of the study. Also, this study contributes to the body knowledge practically, theoretically and methodologically. From practical perspective, the study serves as a template on how various students' personnel services could be provided to students in the school system. In achieving that, suitable provision of students' services should be embedded in the school programs. Apart from providing these services in the school, execution of the school services should be efficiently and effectively carried out so that students can have access to the services. This will positively influence their academic achievement. Theoretically, this study validates students' development theory as well as leadership theory. The two theories helped to explain two concepts of the study (students' personnel services and leadership theory). Methodologically, methodological gap addressed in this study was the instruments adapted for this study. The questionnaire, which was adapted from previous studies (i.e., Arinde 2010; McCaughn, 1999; Mestapelto, & Pulkkinen, 2014; Nyamwange et al., 2012; Owate & Iroha, 2013; Parsad et al., 2003; Parsat et al., 2003; Toma et al., 2014), were used to assess the five dimensions of students' personnel services as well as principal's supervision, which serves as independent and moderating variables respectively. Furthermore, some irrelevant items were removed from the original items while some items were incorporated with a view to determining the degree to which the variables influenced students' academic achievement in this context. Having removed unnecessary items and added relevant items from the adapted items, thus, this present study had verified the adapted questionnaire, which was different from the context in which they had been used previously.

Conclusion

Based on the findings, it can be concluded that principal supervision is a significant factor that strengthen the connection between students' personnel services and academic achievement in school. The impact of principal supervision cannot be compromised, therefore the need for effective supervision of the school services so that the school can achieve its objectives. Thus, this study has provided practical, theoretical, methodological, and practical contributions to the body of knowledge in the field of social sciences, most especially in the field of educational administration. The findings of this study have shown the importance of students' personnel services in the school system and how they are related with the academic success of the students. Findings have also revealed the positive role of the school principals in ensuring that these services were well carried out and that their supervisory role is key to the school success.

Recommendations

Firstly, regarding students' personnel services, all schools should endeavor to provide adequate school services for students since the services are synonymous with the academic

achievement of students. Apart from the services discussed in this research, efforts should be made to ensure that other dimensions of the students' personnel services like accommodation, transport, academic, bursary, extra-mural class, orientation, and food services should be adequately provided. Besides, these services should be adequately incorporated in the programs by the school management, as this will allow students to have access to the school services for their academic development.

Secondly, the study found that the perception of students regarding the school services are high, the school should continue to make sure that students have access to the school services, specifically, services like extracurricular, clinic, guidance and counselling services, and library services. These aspects of students' personnel services are also to be accessed by the students. In achieving this, sensitization of students is needed so that it can have a positive impact on their academic pursuit.

Thirdly, regarding principal's supervision, school principals should see the supervisory role as a unique task that demands full attention. They should ensure adequate supervision of the services so that students can access it. Since a school cannot function without principal, internal supervision should be taken seriously in the school system for overseeing the services provided in the school. Fourthly, on the part of government, adequate budgetary allocation should be made for the provision of school services in secondary schools. Specifically, budgetary allocation of resources to schools should be in line with the needs and aspiration of the students. Since the services are a necessity in education sector, thus, funding of such is sacrosanct for the advancement of the education sector. Government should embark on training and re-training of school principals on supervision for them to acquire more supervisory skills for them to be familiar with modern supervision in their respective schools. This would enable them to bring the skills acquired to bear when carrying out internal supervision in the school system. In addition, apart from the training of the school principals, the personnel in charge of the services discussed in this research should be trained and re-trained by the government for them to be familiar with the global best practices on how to discharge their duties to the students.

Lastly, active participation of private and individual's involvement in contributing to the advancement of secondary education is needed regarding the school services. Companies (e.g. Banks, manufacturing companies, and telecommunication giants), Non-Governmental Organization (NGO), and philanthropists should endeavor to complement the government by assisting schools. They can render their assistance in terms of construction/renovation of the school library, provision of extracurricular activities equipment, provision of guidance and counselling facilities, and renovation/construction of the school clinic. This would make teaching and learning more effective, thereby enabling students to excel in their studies.

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Authors' Profile

Yusuf Suleiman is currently a Lecturer in the Department of Educational Management and Counselling, Al-Hikmah University, Kwara State, Nigeria. He is the Founder/Chief Executive Officer of Yusa'ad Educational Services Limited and a consultant to Success Heritage Model Academy (SHMA), Delta State, Nigeria. He is an expert in quantitative and qualitative research. His area of expertise includes school services, supervision, entrepreneurship, training and leadership.

Zahayah Hanafi is currently a Lecturer in School of Educational Studies, Geomatika University, Kuala Lumpur, Malaysia. She is an expert in Quantitative and Qualitative Research.

Muhajir Tanslikhan is currently a Lecturer in School of Education, Universitas Dr. Soetomo, East Java, Indonesia. He is an expert in both Quantitative and Qualitative Research.