

## Knowledge management and pedagogical innovativeness of vocational educators: The mediating role of transformational leadership style

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**Abstract:** The study investigated the relationships on three dimensions of Knowledge Management (KM), Pedagogical Innovativeness (PI), and Transformational Leadership Style (TLS). The design used for the study was correlational and the data were collected from 137 vocational educators/lecturers in public universities in Nigeria. Structured questionnaire instrument was used, covering the demographic variables of the respondents and measuring the relevant dimensions of knowledge management, pedagogical innovativeness, and transformational leadership style. Three experts validated instrument for this study. The reliability was measured by using Cronbach alpha method and an overall alpha value of 0.89 was obtained. Bivariate correlation linear regression and path analysis via 5000 re-samples bootstrap method was used for analysis. The results showed that knowledge management dimensions i.e. knowledge dissemination, responsiveness to knowledge predict significantly pedagogical innovativeness while knowledge acquisition did not significantly predict it. It also showed that transformational leadership style mediates relationship between knowledge management and pedagogical innovativeness. The results suggest that knowledge acquisition (KA), knowledge dissemination (KD), and responsiveness to knowledge (RK) are among the key indicators of pedagogical innovativeness. The results also suggest that transformational leadership style will not bring about the relationship between knowledge management and pedagogical innovativeness. Based on the findings, it is recommended that knowledge management should be encouraged in tertiary institutions as this will enhance pedagogical innovativeness of vocational educators. In addition, management of tertiary institution should employ transformational leadership style to optimize productivity of their employees.

**Keywords:** Knowledge management dimension; Pedagogical innovativeness; Vocational educators; Transformational leadership style; Quality education

### 1. Introduction

Vocational Educators are lecturers of business education, home economics education, agricultural education, and technology education programmes in Nigerian higher educational establishments. They are faced with the sole responsibility of making all objectives of vocational and technical education programmes a reality. The objectives of vocational and technical education and training include the following. Firstly, to provide technologically based skill training to ensures that students understand how their expertise fits into improving the society and fulfilling national goals; Secondly, to increase access to technological education at tertiary level; Thirdly, to provide training that enables students acquire specialized craftsman skills that empower them to compete globally; Fourthly, to provide training that enables students to acquire the skills and competences in order to take advantage of life's opportunities; lastly, to provide training that enables students to acquire

continuous education that makes them self-reliant, wealth creators and providers of employment ([Federal Republic of Nigeria, 2013](#)).

For vocational educators to perform based on their job descriptions, they need to be well-equipped with appropriate knowledge for the job because knowledge is a core performance determinant. In other words, individuals with high cognitive ability through good Knowledge Management (KM) practices seem to have favourable outcomes in getting knowledge which is relevant to their job, that in turn help in accomplishing their job descriptions or tasks with some level of pedagogical creativity or innovativeness. In view of the value Pedagogical Innovativeness (PI) imparts to educational institutions, knowledge management practices are emphasized to enhance vocational educators' pedagogical innovativeness for the overall benefit of the institutions. pedagogical innovativeness is predicated upon the knowledge, skills and abilities available to workers. If knowledge (whether tacit or explicit) is properly managed, the worker is likely to think innovatively in his pedagogical applications.

The vocational education programme is expected to have manpower that would manage both human and material resources, educational setting as well as other organisational settings. However, it has been observed from the complaints of employers that vocational education graduates seem not to be competent enough in the world of work. It appears that poor pedagogical innovativeness, ineffective leadership style and related outcomes have been part of the issues relating to this deficiency. There could also be inadequate knowledge management practices on the part of the institutions for vocational educators. Despite the enormous empirical investigations in the area of knowledge management practices the same, it cannot be said with regard to vocational educators' pedagogical innovativeness, as evidently shown in the literature reviewed. In addition, most of the reviewed studies were not able to link three dimensions of knowledge management practices (knowledge acquisition, knowledge dissemination and responsiveness) to vocational educators' pedagogical innovativeness as well as the mediating effect of their transformational leadership style. Those are the gaps this study seeks to fill.

Since leaders that practices Transformational Leadership Style (TLS) seem to improve their intrinsic motivation for development of innovativeness spirit and venturing tendency, thus increasing institution's aptitude that may lead to vocational educators' pedagogical innovativeness, it is supposed in this study, that the relationship between KM and PI will be actualized through TLS of vocational educators, therefore, TLS is used in this study as a mediator. Conversely, there is not much literature that establishes the mediating effect of TLS on the relationship between KM and PI. Subsequently, how does TLS bring about the extent of correlation between KM and PI? Hence this study aims to examine the influence of three dimensions of KM (i.e. acquisition, dissemination and responsiveness to knowledge) and TLS on PI. To actualize this objective, four research questions were posed and one hypothesis was formulated. The research questions are:

- (1) To what extent do the three dimensions of KM influence TLS among vocational educators?
- (2) To what extent does TLS influence the PI of vocational educators?
- (3) To what extent do the three dimensions of KM influence the PI of vocational educators?
- (4) To what extent does TLS mediate the relationship between KM and PI of vocational educators

### *Hypothesis*

Transformational leadership style will not significantly mediate the relationship between knowledge management and pedagogical innovativeness.

## 2. Literature review

### *Theoretical framework*

This study is hinged on the Ability, Motivation, and Opportunity (AMO) theory. AMO theory suggests that the component term tends to shape employee's characteristics and contribute to the success of the organization. The AMO theory connotes the ability to increase the ability of employees, motivate employees, and provide them opportunities to contribute meaningfully to the goals of the organizations. The AMO theory supports this study as it has helped in explaining the relationship between knowledge management, pedagogical innovativeness as well as transformational leadership styles of vocational educators.

### *Knowledge management (KM)*

Knowledge can be regarded as a unique systematic and organisational model, blueprint or framework to capture, acquire, organize, and communicate both tacit and explicit knowledge of employees so that other employees may utilize them to become more effective and productive in their work and maximize the organisation's knowledge. Knowledge management is an umbrella term which refers to deliberate efforts to manage the knowledge of an organisation's workforce. Knowledge management can be achieved via a wide range of methods such as direct use of a particular type of ICT (internet), or more indirect method such as management of social processes structured organisation in particular ways (mentorship, coaching among others) or via the use of particular cultures and people management practices (training, seminars, workshops among others.). Knowledge management focuses on connecting people, processes and technology for the purpose of leveraging knowledge, which is a key resource of management. Knowledge management involves the transformation of knowledge resources by identifying important and suitable information and disseminating the same thing so that learning can take place effectively. Since vocational educators serve as sources of knowledge for students' development, knowledge management practices seek to assist them to acquire requisite competencies for their task performance creatively. Knowledge management passes through four phases namely; knowledge creation, knowledge storing, knowledge sharing and the use of knowledge. [Darroch \(2005\)](#) developed a knowledge measurement scale which can be classified under three levels, namely knowledge acquisition; knowledge dissemination and responsiveness to knowledge.

The extent to which knowledge management practices (acquisition, dissemination and responsiveness to knowledge) will lead to effective pedagogical innovativeness may be mediated by business educators' learning self-efficacy and transformational leadership style of management. Therefore, the extent to which knowledge management practices will lead to business educators' task performance and pedagogical innovativeness are hinged on their transformational leadership style of management. For instance, if knowledge management practices exist in an institution and the workers are not willing to learn and to add their knowledge, it might not translate to the employee's pedagogical innovativeness. In the same vein if the leadership style is not a transformational one whereby the employees are encouraged to learn, it might not also translate to employees' pedagogical innovativeness.

### *Pedagogical innovativeness*

Pedagogical innovativeness (PI) entails creativity for adopting appropriate teaching methods for subject content absorption by students or for conveying subject content for students' understanding. Pedagogical innovativeness means doing regular tasks out of conventional way. It is about thinking

out-of-the box while making decisions that satisfy the current needs of students through extraordinary solutions. Pedagogical innovativeness can be likened to creative thinking because creative thinking involves the ability of an employee to combine existing knowledge with a new or unique process of doing things to have an improved result ([Chukwuemeke & Igbinedion, 2021](#)). Creative thinking enhances vocational educators' task performance, thereby making them become creative instructors because of the creativity they display in discharging their duties and which they bring to bear on their task performance polished by creative thinking. This in turn depends on the knowledge management (KM) practices prevalent in their institutions. KM practices/strategies are interpersonal relationships to acquire, share and exchange tacit knowledge across organizations ([A. N. K. Chen et al., 2010](#)). KM practices/strategies are interpersonal relationships to acquire, share and exchange tacit knowledge across organizations. KM involves acquisition, sharing and exchange of tacit knowledge across organizations, via IT-based systems ([Tien Minh et al., 2021](#)). Therefore, sharing, acquisition and exchange of silent knowledge across organizations may provide the prospects for employees to be cognitively, emotionally and physically engaged on the job thereby leading to pedagogical innovativeness of vocational educators.

### *Transformational leadership style*

Transformational leadership style (TLS) on the other hand is known by its ability to bring significant changes in the organisation's strategy, vision, attitude, and culture while advancing creativity and innovativeness in products, services, and technologies ([C.-L. Chen, 2017](#); [Cheung & Wong, 2011](#); [Eyal & Kark, 2004](#); [Yang, 2008](#)). Consequently, it is important for institutions to employ their resources (knowledge), such that could result in success and sustainable institutional growth, stemming from pedagogical innovativeness, enhanced task performance and high students' outcomes. This reflects the relevance of such a leadership style that institution should demonstrate to ensure the acquisition and utilization of knowledge management practices to fulfil the changing needs of the institutions. There are three dimensions of knowledge management (KM) these include knowledge acquisition (KA), knowledge dissemination (KD) and responsiveness to knowledge (RK) ([Darroch, 2005](#)).

## **3. Methods**

The study discussed knowledge management and pedagogical innovativeness of vocational educators, the mediating role of transformational leadership style. The study participants comprised 137 vocational educators in public universities in South-South Nigeria. There are 12 public universities in the zone, five are managed/owned by the Federal government and seven are managed/owned by the state government. KM dimensions (knowledge acquisition, knowledge dissemination and responsiveness to knowledge) were measured with adapted scale from ([Darroch, 2005](#)). Knowledge acquisition had one factor with 10 items; knowledge dissemination one factor with 10 items; and responsiveness to knowledge equally had one factor with 10 items. A sample of the item for knowledge acquisition is: "My institution encourages employees to attend training seminars and conferences". A sample of the item for knowledge dissemination is: "My institution gives employees opportunity to provide feedback to others whenever they attend conferences, seminars or exhibitions". Sample of the item on responsiveness to knowledge is: "My institution keeps abreast with important happenings in the global academic communities".

TLS was measured by 8 items developed by [Aldoory & Toth \(2004\)](#). A sample of the item for transformational leadership style is: "Expresses confidence that goals will be achieved". PI was measured by 10 items developed by [Fields & Bisschoff \(2013\)](#). A sample of the item for pedagogical innovativeness is "I acquire understanding from a variety of information sources without difficulty".

Data regarding knowledge management, pedagogical innovativeness and transformational leadership style was collected from the respondents.

The statistics performed are Cronbach’s alpha, correlational matrix, regression and bias corrected (BC) bootstrap estimate by using [Hayes \(2013\)](#) PROCESS Macro for Statistical Package for Social Sciences (SPSS) version 3.4.1 (Model 4). Cronbach alpha was to determine the internal consistency of participants’ responses. Correlational matrix was performed to determine the extent of correlation among the variables in the research questions raised.

Decision criteria for use of correlational Matrix was based on a range of a coefficient value ( $r$ ) as recommended by [Gay et al. \(2012\)](#). Coefficients  $r$ -value between  $\pm .8$  and  $\pm 1.0$  means very high correlation;  $\pm .6$  and  $\pm .8$  means high correlation;  $\pm .4$  and  $\pm .6$  means moderate correlation;  $\pm .2$  and  $\pm .4$  means low correlation;  $\pm .0$  and  $\pm .2$  means very low correlation;  $\pm 1.0$  means perfect correlation; and coefficient  $r$ -value of 0 means there is no correlation. Note that when a coefficient  $r$ -value is a negative value, it is a negative correlation; which means also that as one variable increases the other decreases. When the coefficient  $r$ -value is a positive value, it is a positive correlation; which means that as one variable increases the other increases. BC bootstrap estimate was performed to test the mediated hypotheses.

#### 4. Results

##### *Research question 1 Dimension of KM influence on TLS*

Data in Table 1 are the bivariate correlations to determine dimensions of knowledge management influence transformational leadership style.

Table 1. Bivariate correlations in relationship of knowledge management and transformational leadership style

Variables	1	2	3	4	5
1. Knowledge Acquisition	1				
2. Knowledge Dissemination	.643**	1			
3. Responsiveness to Knowledge	.552**	.465**	1		
4. Knowledge Management	.880**	.824**	.808**	1	
5. Transformational Leadership Style	.205*	.346**	.254**	.316**	1

Note. \*\* $p < .01$ .

Table 1 shows positive low correlation between knowledge acquisition and transformational leadership style ( $r = .205$ ), knowledge dissemination and transformational leadership style ( $r = .346$ ) as well as responsiveness to knowledge and transformational leadership style ( $r = .254$ ); and the correlations between overall knowledge management and transformational leadership style ( $r = .316$ ). Since there has been evidence of correlations between the pairs of variables, therefore, there is a relationship between knowledge management and transformational leadership style.

##### *Research question 2 TLS influence on PI*

Data presented in Table 2 are the bivariate correlations to determine transformational leadership style influence on pedagogical innovativeness. Table 2 shows the same results between some pairs of knowledge management and transformational leadership style. Table 2 further shows positive low correlation between transformational leadership style and pedagogical innovativeness ( $r =$

.357). Since there have been evidence of correlations between the pairs of variables, therefore there is a relationship between transformational leadership style and pedagogical innovativeness.

Table 2. Bivariate correlations in the relationship of transformational leadership style and pedagogical innovativeness

Variables	1	2	3	4	5	6
Knowledge acquisition	1					
Knowledge dissemination	.643**	1				
Responsiveness to knowledge	.552**	.465**	1			
Knowledge management	.880**	.824**	.808**	1	*	
Pedagogical innovativeness	.109	.257**	.233**	.234**	1	
Transformational leadership style	.348**	.491**	.493**	.526**	.357**	1

Note. \*\*p < .01.

### Research question 3 KM influence on PI

Data in Table 3 depict the bivariate correlations among knowledge management and pedagogical innovativeness.

Table 3. Bivariate correlations knowledge management practices and pedagogical innovativeness

Variables	1	2	3	4	5
1. Knowledge acquisition	1				
2. Knowledge dissemination	.643**	1			
3. Responsiveness to knowledge	.552**	.465**	1		
4. Knowledge management	.880**	.824**	.808**	1	
5. Pedagogical innovativeness	.109	.257**	.233**	.234**	1

Note. \*\*p < .01.

The results reveal positively low correlation between knowledge acquisition and pedagogical innovativeness ( $r = .109$ ). There are positive low correlations between knowledge dissemination and pedagogical innovativeness ( $r = .257$ ), as well as responsiveness to knowledge and pedagogical innovativeness ( $r = .233$ ). The overall correlation between knowledge management and pedagogical innovativeness is found to be positively low ( $r = .234$ ). In all, there is positive low relationship between knowledge management practices and pedagogical innovativeness of vocational educators.

### Research question 4 TLS mediate on KM and PI relationships

Leadership style in relationship between knowledge management and pedagogical innovativeness is presented in Table 4. Table 4 also shows the same outcomes of some pair of correlations (knowledge management, and transformational leadership style). Table 4 shows positive low correlation between knowledge management and pedagogical innovativeness ( $r = .234$ ), and negatively low correlation between transformational leadership style and pedagogical innovativeness ( $r = -.040$ ). Since there have been proof of correlations among the pairs of variables and transformational leadership style may serve as mediator in the relationship amid knowledge management practices and pedagogical innovativeness.

Table 4. Bivariate correlations of transformational leadership style, as mediator of relationship between knowledge management practices and pedagogical innovativeness

Variables	1	2	3	4	5	6
1. Knowledge acquisition	1					
2. Knowledge dissemination	.643**	1				
3. Responsiveness to knowledge	.552**	.465**	1			
4. Knowledge management.	.880**	.824**	.808**	1		
5. Pedagogical innovativeness	.109	.257**	.233**	.234**	1	
6. Transformational leadership	.302**	-.023	.503**	.323**	-.040	.150

Note. \*\*p < .01.

### Hypothesis

Transformational leadership style does not significantly mediate relationship amid Knowledge Management Practices and Pedagogical Innovation.

Table 5. Regression estimates for mediation of transformational leadership style on relationship between knowledge management practices and pedagogical innovation

Variables	Effects	Pathways	Pedagogical innovativeness			
			Beta (β)	SE	P	95% CI LL, UL
Knowledge Acquisition	Total	KA → PI	.061	.040	.2049	-.034, .157
	Direct	KA → PI	.115	.048	.0048	.036, .194
	Indirect	Ind1: KA → PI	-.020	.035	NS	-.091, .044
		Ind2: KA → TLS → PI	.001	.003	NS	-.001, .010
		Ind3: KA → TLS → PI	-.034	.016	S	-.075, -.011
Knowledge Dissemination	Total	KD → PI	.167	.054	.0025	.060, .274
	Direct	KD → PI	.130	.044	.0039	.042, .217
	Indirect	Ind1: KD → PI	.036	.043	NS	-.048, .121
		Ind2: KD → TLS → PI	-.001	.003	NS	-.018, .001
		Ind3: KD → TLS → PI	.003	.011	NS	-.013, .035
Responsiveness to Knowledge	Total	RK → PI	.137	.049	.0061	.0397, .233
	Direct	RK → PI	.208	.043	.0000	.122, .294
	Indirect	Ind1: RK → PI	.020	.043	NS	-.064, .106
		Ind2: RK → TLS → PI	.001	.005	NS	-.020, .003
		Ind3: RK → TLS → PI	-.090	.024	S	-.147, -.051
Knowledge Management	Total	KM → PI	.167	.060	.0059	.049, .285
	Direct	KM → PI	.204	.049	.0001	.107, .302
	Indirect	Ind1: KIM → LSE → PI	.014	.044	NS	-.109, .037
		Ind2: KM → LSE → TLS → PI	-.001	.005	NS	-.016, .003
		Ind3: KM → TLS → PI	-.051	.018	S	-.098, -.023

Note. KA = knowledge acquisition, KD = knowledge dissemination, RK = responsiveness to knowledge, KM = knowledge management, LSE = learning self-efficacy, TLS = transformational leadership style, PI = pedagogical innovativeness, CI = confidence interval, LL = lower limit, UL = upper limit, Ind = specific indirect effect, \*\*\*p < .001, \*\*p < .01, \*p < .05, NS = not significant, S = significant.

Table 5 describes regression and bootstrap estimates on the multiple mediating roles of transformational leadership style on relationships among knowledge management and pedagogical innovativeness of vocational educators. The overall effect of knowledge acquisition on pedagogical innovativeness is not statistically significant ( $\beta = .061, p > .05$ ); while the total effects of knowledge dissemination ( $\beta = .167, p < .01$ ), responsiveness to knowledge ( $\beta = .137, p < .01$ ), and the aggregated knowledge management ( $\beta = .167, p < .01$ ) on pedagogical innovativeness are statistically significant. Table 5 shows that the specific indirect effects of knowledge acquisition ( $\beta = -.034, LL = -.075, UL = -.011$ ), responsiveness to knowledge ( $\beta = -.090, LL = -.147, UL = -.051$ ) and aggregated knowledge management ( $\beta = -.051, LL = -.078, UL = -.023$ ) via transformational leadership style are statistically significant. Thus, transformational leadership style is a significant mediator in relationships of knowledge acquisition, responsiveness to knowledge and aggregated knowledge management with pedagogical innovativeness of vocational educators. Since the direct effects of knowledge acquisition ( $\beta = .115, p < .01$ ), responsiveness to knowledge ( $\beta = .208, p < .001$ ) and aggregated knowledge management ( $\beta = .204, p < .001$ ) on pedagogical innovativeness via transformational leadership style are statistically significant, transformational leadership style is regarded as a partial mediator in the relations.

## 5. Discussion

Results of research question one disclosed that KM dimensions such as knowledge acquisition, knowledge dissemination and responsiveness to knowledge were significant predictors of TLS among vocational educators. Consequently, KM dimensions were seen to significantly predict TLS among vocational educators. The finding implies that if vocational educators acquire, distribute and respond to knowledge, they will all likely be leaders with transformational leadership style. The finding supports the study of [Ceptureanu et al. \(2017\)](#) who found that the dimensions of KM analysed has a significant and positive influence on TLS among employees, such as leadership style demonstrate to ensure the acquisition and utilization of knowledge management to fulfil the changing needs of the institution. The finding also supports the study of [Ceptureanu et al. \(2017; Murase, 2021\)](#) who found out that KM dimensions significantly and positively influence TLS among employees. Knowledge disseminating could enhance TLS among employees, therefore, tertiary institutions that are interested in transformational leadership style to enhance their employees' productivity should offer opportunities for them to obtain, disseminate and respond to knowledge within their organization.

The results of research question two discloses that TLS significantly predicts PI of vocational educators. TLS was found to significantly predict PI of vocational educators. The finding implies that if vocational educators are exposed to transformational leadership style, this in turn, will translate to their pedagogical innovativeness. This finding supports the study of [Audenaert et al. \(2017\)](#) who found a positive relationship between TLS and PI. In their article, they present previous studies which have been done that support this claim. They stated that transformational leaders promote institutional activities by encouraging their employees' inspiration to get engaged in developing novel ideas. Therefore, tertiary institutions that require their staff to perform effectively on the job should endeavour to provide the chances for them to be cognitively, emotionally and physically aroused to be creative on their job within their organizations.

The finding also corroborates the study of [Jung et al. \(2008\)](#) who stated that transformational leaders assist their employees to develop self-efficacy and confidence in striving for innovative work and to perform beyond hopes. This confidence with motivation, engages employees in innovative thinking, new working patterns, and identifying new market opportunities which are the



fundamentals of institutional goals as well as vocational education programmes which are positively related to task performance. Their study further found that engaged secretaries scored higher on both task and contextual performance.

The results of research question three shows that KM dimensions such as knowledge acquisition and knowledge dissemination are significant predictors of PI of vocational educators. The result also reveals that KM dimensions such as responsiveness to knowledge is a significant predictor of PI of vocational educators. The result further tells that KM dimension such as knowledge acquisition does not significantly predict pedagogical innovativeness of vocational educators. This means that the KM dimension such as knowledge acquisition was the only dimension of KM found not to significantly predict pedagogical innovativeness of vocational educators. This finding is at variance with the assertions of Andreeva & Kianto, 2011; [Dalziell & Mcmanus, 2004](#); [du Plessis, 2007](#); [Ichijo & Nonaka, 2007](#); [Jantunen, 2005](#); [Parsons, 2010](#)) who maintained that most extant studies have not provided clear guidance as to what particular knowledge management practices are believed to have the most significant effects on pedagogical innovativeness. This difference could be attributed to the type of statistical tools used in analysing the data of the studies. The results tell that KM dimensions are significant predictors of PI of vocational educators. The finding is also in consonance with [Bueno et al. \(2008\)](#) who posited that knowledge management practices enable institutions to sustain distinctive competencies and explore innovative opportunities. This means that knowledge dissemination could significantly predict PI of employees. Therefore, tertiary institutions that are interested in enhancing effective PI of their staff should endeavour to provide the opportunities for them to acquire, disseminate and respond to knowledge within and outside their organizations.

The result of research question four reveals that TLS does significantly mediate the relationship between KM and PI of vocational educators. The result suggests that TLS is a potential mediator in the relationship between KM and PI of vocational educators. This implies that vocational educators display higher KM, which is equally responsible for high TLS and, in turn, led to high pedagogical innovativeness among them. This refers to the existence of knowledge acquisition, dissemination and responsiveness trusting as well as good quality relationships between and among vocational educators and their employer leading to expertise visibility. The study of [Flatten et al. \(2015\)](#); [Nemanich & Vera, 2009](#); [Poleacovschi & Javernick-Will, 2020](#); [Rožman et al., 2019](#)) supported this finding, as they advocated that transformational leaders promote knowledge management, using different methods, especially by articulating a vision that focuses on the significance of knowledge transformation and exploitation, and by presenting a suitable model that demonstrates how vital it is to develop firm knowledge base which in turn leads to pedagogical innovativeness. Furthermore, the finding corroborates the finding of ([Dixit & Upadhyay, 2021](#); [Ile & Edokpolor, 2020](#); [Keeley, 2004](#)) who stated that the existence of a formal knowledge management practices in the scientific research in higher education institutions are positively correlated with organisational learning and innovation.

## 6. Conclusion

This study examined the relationship between KM, TLS and PI of vocational educators. Specifically, it examined the relationships between the three dimensions of KM (i.e. knowledge acquisition, knowledge dissemination and responsiveness to knowledge), and PI of vocational educators. The results showed that all the three dimensions of KM significantly and positively predict TLS, suggesting that acquisition of knowledge, dissemination of knowledge and responsiveness to knowledge are among the key antecedents of TLS among vocational educators. In addition, TLS significantly and positively predict PI, suggesting that transformational leaders are among the key antecedents of PI of vocational educators. Furthermore, responsiveness to knowledge and

knowledge dissemination significantly and positively predict PI, while knowledge acquisition does not significantly predict PI of vocational educators, suggesting that knowledge dissemination and responsiveness to knowledge are the only antecedents of PI of vocational educators. Besides, providing the opportunities for vocational educators to acquire, share and respond to knowledge within and outside their academic institutions, it could promote high levels of TLS which, in turn, lead to high levels of PI. The results further showed that TLS significantly mediated the relationship between KM and PI of vocational educators. It proved that high TLS will strengthen the relationship between KM and PI of vocational educators. However, future studies can be carried out to establish whether KM is a key managerial strategy to achieve effective PI through TLS. Additionally, future studies could include experimental studies to provide an in-depth view of study hypotheses proposed and research questions raised because the questionnaire may have not been able to articulate the nitty-gritty of the actual issues. Experimental studies could also cover a wider scope and attract a higher number of respondents.

## 7. Recommendation

Based on the findings, it was recommended that knowledge management should be encouraged in tertiary institutions as this will enhance pedagogical innovativeness of vocational educators. Also, management of tertiary institutions should employ a transformational leadership style for ultimate productivity of their employees in their tertiary institutions.

## Author contribution

Helen Edowaye Chukwuemeke Writing – Original draft and Investigation. David Nwanna Dumbiri: Writing – Review & Editing.

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## Competing interest

The author declares that there is no conflict of interest.

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