

**Impact of Knowledge Sharing on Entrepreneurial Skills for Sustainable Development
Among Students of Vocational and Technical Schools in Plateau State, Nigeria**

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Abstract

The study seeks to investigate the impact of knowledge sharing (KS) on students' entrepreneurial skills for sustainable development. To conduct this research, 150 respondents from 3 higher institutions of Plateau State Nigeria were surveyed through a structured questionnaire. The responses were analysed by correlation and regression analysis using SPSS software to test the hypotheses. Correlation analysis reveals that knowledge sharing has a significant and positive relationship with the entrepreneurial skills of students of vocational and technical schools of higher institutions. Therefore, the findings of this study have significant implications for our institutions' authority to ensure sustainable competitive advantage through academics' entrepreneurial skills, creativity, and competencies for employability by cultivating a knowledge-sharing culture among institutions.

Keywords: knowledge sharing, entrepreneurship, sustainable development, and technical skills

Introduction

Entrepreneurial skills and competencies of students of higher institutions (HI) can be a vital tool for nationwide innovation. It also plays an exceptional role in accelerating economic change and sustainable development (Boubker et al., 2021). Given Nigeria's large economy and population, HI students are the driving force of innovation and entrepreneurship. Improving their entrepreneurial competencies can help speed up their entrepreneurial actions and alleviate the heavy pressure of unemployment on the government, thereby converting high-quality human resources into human capital (Zhang et al., 2022). As increasing the success rate of entrepreneurial projects and enhancing HI students' entrepreneurial competencies are key objectives of talent cultivation and higher education reform, researching this topic to inform the academic workforce and policymakers is important for the sustainable development of higher education.

Given that a diverse learning environment is a strong indication of students' entrepreneurial intentions and behaviour, exploring how to improve students' entrepreneurial competencies through knowledge sharing is crucial for the cultivation of innovative talents in colleges and universities. This includes lecturers' diversified pedagogical approaches, the application of advanced knowledge generated through research into students' practical experiences, and higher education's collaboration with external parties (e.g., business organizations). Research indicates that a diverse learning environment in higher education improves learning performance, fosters diverse and innovative thinking, and helps to enrich individuals' entrepreneurial knowledge base (Haddad et al., 2021) while increasing their entrepreneurial competencies. Yet, despite the acknowledgement of the importance of knowledge sharing, the existing research focuses on its impact on students' entrepreneurial skills (Haddad et al 2021)

This study intends to investigate whether knowledge sharing among students of higher institutions can improve their entrepreneurial skills. This paper considers Knowledge sharing as a process of transferring and knowledge application in different contexts, and as a beneficial skill in improving learners' cognitive capacity (Aglen, 2016). In addition, self-efficacy increases HI students' stamina to pursue goals in complex situations, strengthens their perseverance in the face of obstacles, their resilience to adversity, and their ability to manage

stress when handling demanding tasks (Wang et al., 2019). These latter qualities are thought to be important influencing factors in entrepreneurial skills. Therefore, knowledge donation or knowledge collection facilitates HI students to maintain cognitive flexibility when adapting to changing situations, enabling them to come up with new ideas and potential solutions to new problems, thereby enhancing their innovative and entrepreneurial skills (Dheer & Lenartowicz, 2019). Knowledge sharing can have a positive impact on students' innovative behaviour and entrepreneurial skills which will contribute to sustainable development in Nigeria. A study conducted by (Phung et al., 2019) shows that employee willingness to share knowledge enables the organisation to promote entrepreneurial skills and competencies. Research has also shown that knowledge sharing can help to increase productivity and innovation, which are essential for sustainable development (Kiomjian et al., 2020). Hence, it helps to build trust and relationships between students, which can lead to more effective collaboration and problem-solving. For schools of vocational and technical education students to be employable, there should be continuous innovation and efficient delivery of skills.

Concept of entrepreneurial skills

A “competence” is defined as the ability to operationalize, in a concrete situation, a set of knowledge, attitudes, and skills to be successful (Jardim et al., 2021). This concept highlights that a competent person in a given area has an analytical, creative, and practical *savoir-faire*, more than simply an uprooted knowledge of performance circumstances. Furthermore, it shows a specific competence when successfully operationalizing its knowledge in specific situations. In turn, entrepreneurial skills are understood as the knowledge, attitudes, and skills that enable someone to be successful in developing original and valuable projects, products, or services, based on the needs of a company—target population and, as a result, the fulfilment of functional, social, or emotional objectives (Jardim et al., 2021).

In this context, competencies enable the realization of practical ideas in solving problems and satisfying a segment of customers. So, a complex set of skills is needed to design, test, and expand an effectively a winner’s business model. Among these competencies, in the literature, we can identify several models with transversal competencies or life skills that allow being successful in personal, family, and social life (Bacigalupo et al., 2016) we also found specific academic skills to be successful in university life (Valero et al., 2021); and models that

envisage the promotion of a society based on entrepreneurial culture (Jardim 2021). Some national and international bodies responsible for education have defined competency models in citizenship and participation, pointing to the need for everyone to be interventional and take entrepreneurial attitudes.

Concept of knowledge sharing

Knowledge sharing is a well-discussed topic in the field of organizational behaviour, as it benefits employees as well as employers. Knowledge sharing is a behaviour of mutual exchange of expertise, skills and information among employees (Chaudhary et al., 2023). Knowledge sharing involves explicit or implicit knowledge that develops organizational knowledge through creating new knowledge and contributing toward organizational progress (Kmieciak, 2021). Literature has suggested knowledge collection and donation as two aspects of knowledge sharing (Rahman et al., 2021). Knowledge collection includes consulting others about learning what they know, whereas, knowledge donation means transferring one's knowledge among others through communication (de Vries et al., 2014). However, knowledge sharing occurs when "people who possess knowledge are willing to transfer their work experience, techniques, and opinions to others in a concrete manner and expect that others will practically apply such knowledge at work" (Yu et al., 2013), and this creates organizational-level and individual-level innovation (Pittino et al., 2018).

According to Hughes et al. (2018), individual-level innovativeness results in organisational-level innovativeness. Therefore, knowledge sharing is an essential source of organizational success. It involves individuals' intentional actions toward the generation, realization, implementation, and promotion of novel information, ideas, methods or a process to improve performance and efficiency (Javed et al., 2021). As knowledge sharing contributes to organizational overall success, therefore there is a need to identify factors that provoke employees' knowledge sharing (Kmieciak, 2021).

Knowledge is "a fluid mix of framed experiences, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information"(Davenport & Prusak, 1998), and plays an important role in creating innovation and skills (Kmieciak, 2021). Therefore, up-to-date knowledge may help individuals to

participate in creative activities that shape employees' innovative behavior (Battistelli et al., 2019). Specifically, individuals through knowledge-sharing process enhance their colleagues' skills, expertise and abilities that are essential for innovative behavior (Anser et al., 2022). Knowledge sharing facilitates individuals in cognitive restructuring because the recipient has to connect and integrate new knowledge with his/her existing knowledge. Indeed, knowledge sharing process triggers reflecting, verifying and reinterpreting individuals' knowledge. This knowledge elaboration and recombination facilitate individuals to generation and implementation of creative ideas (Radaelli et al., 2014).

Scholars have researched on knowledge sharing regarding entrepreneurial skills such as Islam and Asad (2024) whose findings postulate that entrepreneurial leaders positively affect employees' creativity and knowledge sharing positively explains this association. The authors further noted individuals high in creative self-efficacy strengthen the association between knowledge sharing and employee creativity. A study by Anumnu (2013) shows that there is a significant relationship between knowledge management and the development of entrepreneurial skills among vocational-technical students in the area of knowledge gathering, sharing, networking and students' capacity to translate some curriculum elements into the world of work among others.

Bahrani & Harandi (2020) in their study indicated that there is a significant and multiple relationship between information literacy (Definition of information needs, information location, information evaluation, information organization, information exchange) and knowledge sharing (Knowledge donation and knowledge gathering) with students' entrepreneurial abilities. Chaudhary et al (2023) stated that knowledge sharing positively affects employees' innovative work behavior (IWB) and occupational self-efficacy explains this association. In addition, employees' perception of entrepreneurial leadership strengthens the association between knowledge sharing and IWB. Sintasah et al (2020) also conducted a study and demonstrated that entrepreneurial leadership positively affects innovation and further shows that entrepreneurial leadership positively affects knowledge sharing, and knowledge sharing affects innovation positively.

Sung and Choi (2019) further contended that the presence of only a knowledge pool within the group or team fails to lead to creativity, which occurs only when members are willing

to share and apply the knowledge reservoir. Knowledge Sharing enables members to have access to diverse knowledge resources within the group, which results in interaction and co-learning among members, thus promoting the utilization of intragroup cognitive resources to creatively solve problems Leenders et al (2003). Furthermore, in line with the social structural perspective, coordinated action, and the development of new ideas can be fostered by the intense activities of knowledge-sharing and dense networks of communication. (Hou et al., 2021). KS is considered a catalyst for creativity-related collaboration in that knowledge is one of the most essential domain-related skills. In this sense, KS represents a process of communication within the team in which members might rebuild their knowledge when they access knowledge from other team members. During this process of KS and exchange, team members could also enhance their accumulation of knowledge and experience (Zhang et al., 2019). There is an empowering effect on creative work behaviour through knowledge sharing. Moreover, it also showed that there was an empowering effect on entrepreneurship through knowledge sharing (Abualoush et al., 2022).

A quantitative cross-sectional survey research design has been adopted to achieve the study objectives. Data was collected from the target participants who are final year students of the School of Vocational and Technical Education, Federal College of Education Pankshin, college of Education Gindiri Plateau state. Using convenience sampling, a structured questionnaire was distributed to 180 respondents who were given two weeks to respond. To ensure maximum participation with sincere responses and to avoid any types of bias and error questionnaire included a separate section mentioning the general purpose of the study and the necessary instructions and a promise to keep the anonymity and confidentiality of the respondents. Finally, 150 questionnaires were received, representing a response rate of 83.33%, of which 150 questionnaires were found usable for the study. Hence, the sample size for the study was 150.

Cronbach's alpha (α) is the most widely used method to test the reliability of the scale which stated that, its value ranges from 0 to 1 but the satisfactory value is required to be more than 0.6 for the scale to be reliable (Malhotra et al., 2006; Cronbach, 1951). Typically, scales with a coefficient α value between 0.80 and 0.95, 0.70 and 0.80, 0.60 and 0.70 and below 0.6

are considered to have very good reliability, good reliability fair reliability and poor reliability respectively (Zikmund et al., 2013).

Scale	NO of items	Cronbach Alpha (α)
Knowledge Sharing	5	.750
Entrepreneurial skills	10	.942

Table -1 shows that the estimated reliability value is between $\alpha= 0.683$ to 0.830 throughout the scales. Since the cronbach's alpha (α) values are above the threshold value of $.06$ thus our scales can be said to be fairly reliable. Face and content validity of the measures was considered as adequate by several experts while shared with them.

Measures

Knowledge Sharing (KS) questionnaire was measured using with five items adapted from the study of Harb and Abu-Shanab (2020) with Cronbach alpha of 0.75 while Entrepreneurial skills (EPS) was measured using five items adapted from Suleiman et al. (2020) with Cronbach alpha of 0.942 . A 5-point Likert scale was used to rate the items on the scale where 1 representing “strongly disagree” and 5 to “strongly agree”.

Data Analysis

Statistical Package for Social Science (SPSS) 22.0 version has been employed to input and analyze the collected data. The study reported descriptive statistics including means, standard deviations, and correlation for the independent variable KS, and the dependent variable entrepreneurial skills. Besides, inferential statistics analysis of variance and regression analysis have been conducted to find out the relationship between KS on EPS and thus to validate the hypotheses in the research framework.

Since the study used self-reported data from a single source, the study tested the presence of possible common method variance (CMV) in the collected responses, using Harman's single factor test which indicated that a single factor can explain a maximum of 24.284% of the variance, which is much lower than the cut-off value of 50% . Thus, the data is assumed to be free from CMV. Moreover, the study calculated the VIF value 1.579 (in table-

5) for both the independent variables which are within the threshold of 3.3 (Kock, 2015) indicating that there is no multicollinearity problem among the predictor variables.

Descriptive Statistics and Correlation for the Variables

Table-3 shows the mean, standard deviation and correlation of knowledge sharing (KS) and entrepreneurial skills ($r = .515$, $p < 0.01$)

Table-2: Mean, Standard Deviations and Correlation for Knowledge Sharing and Students Entrepreneurial Skills.

SL	Variables	Mean	S. D	1
1	Knowledge Sharing (KS)	3.81	.85	1
3	Entrepreneurial Skills (EPS)	3.96	.76	.515**

Source: survey data: **Correlation is significant at 0.01 level (2-tailed); ** $p < 0.01$

Inferential Statistics: ANOVA and Regression Analysis

Table -4 shows that $R^2 = .336$, which implies 34% observed variability in students' entrepreneurial skills can be explained by knowledge sharing thereby confirming a moderate predictive capacity of the independent variables included in the model.

Table-3: Predictors of Students Entrepreneurial Skills- Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.579a	.336	.320	3.18500

a. Predictors: (Constant), KS

The result of ANOVA as exhibited in table-5 shows that $F(2, 87) = 21.98$ and $p = 0.001$

Table-5: Result of ANOVA Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	445.939	2	222.969	21.980	.000b
	Residual	882.550	87	10.144		
	Total	1328.489	89			

a. Dependent Variable: ISD, b. Predictors: (Constant), KS

Result of the regression coefficients as shown in table-6 demonstrate that knowledge sharing (KS) is positively and significantly influencing students' entrepreneurial skills since the value of knowledge sharing is (H1: $\beta=.313$, $t=2.854$, $p<0.05$)

Table-5: Regression Coefficients for predictor of EPS

model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	20.970	2.847		7.365	.000		
KS	.299	.105	.313	2.854	.004	.633	1.579

a. Dependent Variable: EPS

Discussion

The result of the study showed that the hypotheses proposed in the study is well-supported, indicating that knowledge sharing have a significant and positive impact on the entrepreneurial skills of students in the various schools in Plateau State of Nigeria. The finding of the current study is in line with previous studies by Islam et al (2022); Islam & Asad (2024) who found knowledge sharing as an effective tool for entrepreneurial skills. Additionally, Islam et al (2024) suggested in their study that knowledge sharing contributes positively to the entrepreneurial skill of employees is also confirmed in the present study. Moreover, the social

exchange theory supports the findings is in a way that individuals are more eager to share their knowledge if they are also reciprocated with their desired knowledge in their organizations. Besides, knowledge collecting and donating creates a friendly working atmosphere that leads to new idea generation, idea promotion, and idea realization within the organization.

Conclusion and Recommendation

The study contributes to the existing literature by exploring the impact knowledge sharing as an important predictor of entrepreneurial skills among students of the two Colleges of Education and Plateau State Polytechnic in Plateau State Nigeria. The study therefore recommended that authorities of the schools should facilitate and cultivate a culture of knowledge sharing in their schools to stimulate entrepreneurial skills among students which will ensure achieving employability and sustainability.

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