

## **Developing entrepreneurial skills among Delta State Polytechnic, Otefe, students through knowledge management**

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### **Abstract**

This study was a survey research which examined the ways knowledge management (KM) can promote the development of entrepreneurial skills among the students of Delta State Polytechnic, Otefe (DSPTO), Nigeria. The objective of the study were to determine students level of understanding of knowledge management as it relates to entrepreneurial skills acquired through lectures received at the Polytechnic and to establish the importance of knowledge management to the development of entrepreneurial skills. Questionnaire was used to collect data from a sample size of 500 students from ND 2 and HND 2. The study found out that DSPTO students generally have low understanding of KM, however perceived KM as relevant to the development of entrepreneurial skills.

**Keywords:** Knowledge management, entrepreneurial skills, Delta State Polytechnic Otefe, tertiary institutions, curriculum

## **1. Introduction**

In recent years, most countries in the world especially developing have experienced economic recession accompanied by increased rate of unemployment. The scourge of unemployment is felt globally although with varying degrees in different countries. Combating the problem of unemployment is the responsibility of everybody irrespective of nationality, discipline and educational status. In a bid to check the scourge of unemployment in the country, the Nigeria's National Policy on Education (2004) on vocational and technical education made provision for the introduction of entrepreneurial education in the curriculum of tertiary institutions irrespective of discipline. The development of entrepreneurial skills has also been identified as a major tool for combating the problem of unemployment in the society (UNESCO, 2013). The need therefore arose for all stakeholders in the academic environment to develop strategies/effective techniques to impart to students entrepreneurial skills. The academic library, as a repository of information which supports teaching, learning and research of the institution therefore has a role to play in promoting the development of entrepreneurial skills through knowledge management. Traditionally, the academic library in the polytechnic like every other tertiary institution occupies a central position and generically conveys its integral role in supporting higher education's core mission of imparting knowledge through teaching and research (Adigun, Zakari and Andrew, 2011). Academic libraries in the present global information society are "knowledge gateways" (Ravi 2008). Information, from where knowledge is generated is an indispensable commodity particularly in a formal educational setting such as the polytechnic. Besides, the high turnout of information has in the present digital age calls for the service for an expert in the selection and collection of information for specialized use such as what takes place in the polytechnic (tertiary institutions). The academic library by its purpose presents itself as the first port of call for students and lecturers alike who may not be able to acquire needed information resources for their academic pursuit. Moreover, the need for the development of entrepreneurial skills which has been identified as an antidote to cushion the effect of unemployment (UNESCO, 2008) is meant for every student's irrespective of discipline. Osemeke, (2012) found that entrepreneurial development is conceived as a programme of activities to enhance the knowledge, skill, behaviour and attitudes of individual and groups to assume the role of entrepreneurs.

### **1.1 Statement of problem**

Following the regulation of government to expose students to entrepreneurial training at tertiary education level, the Delta State Polytechnic Otefe has incorporated courses in entrepreneurship for students in every discipline at all levels. The challenge now is that most of these students may not have been exposed to entrepreneurship study at secondary schools. The problem identified and addressed by this study is that the development of entrepreneurial skills being provided through the entrepreneurship study received by Delta State Polytechnic students needs to be modified and improved upon. This may be necessary as the development of entrepreneurial skills in the present digital age should be broad enough to address the challenges typical of a fast changing information society such as ours.

Enu (2010) points out that we are in fast changing and interdependent world, the achievement of this objective (development of entrepreneurial skills) presupposes that every knowledge asset available to the Polytechnic be harnessed and effectively managed.

## **2. Literature review**

### **2.1 Entrepreneurship and entrepreneurial Skills**

Entrepreneurship according to Jamshidian, Yazdanshenas, Haghshenas and Shaemi and Shahin (2007) is a process of innovation, taking advantage of opportunities with great attempts along with financial, mental and social risk compliance with the purpose of gaining financial profit, achievement, personal satisfaction and independence. Mundra (2012) sees entrepreneurship as the engine that propels innovation, employment creation and economic growth. To Hisrich and Peters (2002) entrepreneurship is a process of creating value through the combination of resources to exploit an opportunity or opportunities as the case maybe. European commission (2006) defines entrepreneurship as "the ability of an individual to turn ideas into action. The core idea of entrepreneurship is a strategy to boost the economy which is done through creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objective (European commission, 2006). From the definitions put forward above the traits of entrepreneurship include creativity, initiative and a sound knowledge of the environment in which the business is situated and the target audience. Hence Cwiklicki and Wodecka-Hyjek (2015) identified entrepreneurship as a "special type of people's activity, acting individually or inside an organization, consisting in the use of opportunities emerging in the environment, by the implementation of projects that bring economic and/or non-economic effects to their entities and to the environment". Another important element that can be identified from the definitions above is that the object of entrepreneurship is profit making which encompasses innovation, development, recognition/seizing of opportunities and converting opportunities to marketable ideas, values in a competitive setting.

The process of entrepreneurship consists of skills profile made up of aptitudes which have been mastered to a lesser or greater degree (Amiri and Marimaei, 2012). Put differently, to attain entrepreneurship one has to pass through training formally or informally, directly or indirectly over some period of time to gain mastery over the act of entrepreneurship. Accordingly entrepreneurship, over the years has been viewed as essential in preparing today's students for success and eventual leadership in the new global market and as such should be made universally available to provide all students with opportunities to explore and fulfill their potentials (Dirk, 2009 in Enu, 2010). Hence entrepreneurship education is taught to impart on students entrepreneurial skills. Gautam and Singh (2015) advanced that it is all about creating and nurturing a learning environment that promotes entrepreneurial traits and behaviors such as becoming creative and independent thinker, risk taker, assuming responsibility and valuing diversity. Entrepreneurial skills can therefore be regarded as the competency to perform as an entrepreneur. In this vein Lackeus, (2015) associates entrepreneurial competencies with the skills, knowledge, and attitudes that affect the willingness and ability of an individual to perform entrepreneurial job of creating new values. Anumnu, (2014) advanced that entrepreneurial skills are those competencies required by an entrepreneur to enable her/him succeed in whatever field of business she/he chose. According to EU Skills Panorama, (2014) The Organisation for Economic Cooperation Development (OECD) outlined three groups of skills required by an

entrepreneur to function competently. These group of skills include; Technical: Business management: Personal entrepreneurial:

Cooney, (2012) considered literatures published regarding the skills required of an entrepreneur and came up with a skills-set namely entrepreneurship skills, technical skills and management skills. He however concluded in that study that customer orientated, strategic development, financial management, human resource management are the principal entrepreneurial skills that needs to be acquired by growth oriented entrepreneurs. Zenner, Kumar, Pilz, (2017) based their understanding of entrepreneurial skills on the extensive definition of entrepreneurial competencies, therefore drawing on Fisher, Graham and Compeau, (2008) and Lackeus, (2015) knowledge (knowledge of career opportunities, business and financial knowledge, knowledge of business organisation and processes); attitudes (ability to reflect, entrepreneurial identity, self efficacy, pro-activeness, entrepreneurial passion and perseverance); skills (opportunity skills, strategic skills, resource skills and interpersonal skills) as principal entrepreneurial skills. The importance of entrepreneurial orientation has been on the increase as the government and educational sector realised its importance in engendering economic growth and development (Osemeke, 2012). This study therefore seeks to examined the ways knowledge management can promote the development of entrepreneurial skills among the students of Delta State Polytechnic, Otefe (DSPTO), Nigeria.

## ***2.2 Knowledge management and development of entrepreneurial skills***

The term knowledge management in contemporary global society is an interdisciplinary practice which deals with every aspect of knowledge regarding all aspects of human endeavour. According to Wanangeye and George (2016) over the past decade knowledge management has increased in popularity and credibility as management tool and a research discipline as well. It is the systematic management of an organisation's knowledge assets for the purpose of creating value and meeting tactical and strategic requirements; it involves the initiatives, processes, approaches and system that sustain and enhance the creation, storage, assessment, refinement, sharing and dissemination of knowledge (Frost, 2010). Wanangeye and George (2016) point out that knowledge is increasingly seen as a key competitive resource in every organisation. He explained further that knowledge can be explicit or implicit. Implicit knowledge is conceptual and it is got from experience which gives rise to intelligence, initiatives and innovativeness, which are the core traits of an entrepreneur.

Knowledge management is therefore perceived to have captured the attention and service delivery of many organisations such that it is now a major subject of investigation. Hence it will not be out of place to speculate that although the Delta State Polytechnic Otefe students are being taught entrepreneurship they still need to acquire diverse knowledge and application know how to fully develop entrepreneurial skills. This assertion is supported by Maponya (2004) who explained that knowledge management is an appropriate discipline which enables students a smooth integration of these new needs that have arisen from the present economic, social and technological context into higher education.

It is well recognised that education and training opportunities play key roles in cultivating future entrepreneurs and developing the abilities of existing entrepreneurs to grow their business to

greater heights of success (Amiri and Marimaei, 2012). The advent of the knowledge economy and its emphasis on such values as cutting edge (in terms of ideas, innovation, facilities and most importantly technology) (Obanya, 2010) has further increased the relevance for knowledge management in the development of entrepreneurial skills. ECLAC (2010) advanced a framework of knowledge management processes in which six components of knowledge management were presented. Locating knowledge, capturing knowledge, creating knowledge, sharing knowledge, applying knowledge and storing knowledge:

Considering the factors that constitute entrepreneurial skills it can be seen that knowledge management can enhance the development of entrepreneurial skills. The literature of entrepreneurial skills development reveals that entrepreneurship is mainly all about innovation, development, seizing opportunities, converting opportunities to marketable ideas and values. The outcome of which is resource change, innovation, technical progress and capital formation which produces new knowledge, new production techniques/possibilities, profits and economic growth Amiri and Marimaei (2012). The development of entrepreneurial skills refers to the activities involved in the processes involved in the impartation of attitudes and knowledge designed to inculcate the needed skills or attitudes of an entrepreneur. While entrepreneurial skills can be developed and enhanced through structured training skill and knowledge acquisitions institution-building programmes Osemeke (2012) such as polytechnics, universities and other institutions of higher learning as stipulated by Nigeria's National Policy on Education (2004).

The concept of knowledge management according to Jain (2013) and (Bhat 2002) originated in the business sector, the purpose is to maximize the utilization of the corporate knowledge for the efficient running of a company and to make the company more competitive in the market. The whole idea of knowledge management is knowledge. Entrepreneurs need not to master only the act of entrepreneurship but also to develop their skill so that they can be successful in the face of competition in the business world both locally and internationally. In line with knowledge management process presented by ECLAC (2010), students' entrepreneurial skills can be developed if applied;

**Locating knowledge:** identifying relevant information, knowledge and expertise available. An entrepreneur has been described as person who demonstrates initiative and creative thinking, habitually creates and innovates to build something of recognised value around perceived opportunities (Hisrich, 1990; Bolton and Thompson, 2000). With the knowledge of knowledge management students can get understanding of the right sources of information to access to get relevant current information in their chosen area. The service of experts is also relevant such as librarians who are information brokers. They can be helpful in offering specialized information services by sourcing for key documents, particular websites and databases devoted to specific fields, interests or item of trade or line of business as the case may be. Librarians are recognised as 'knowledge creators through content management, organisation of knowledge and evaluating the validity, reliability of information obtained from unfamiliar sources' (Wanageye and George 2016). The use of information expert such as the librarian will also give the student entrepreneur in training to attend workshops, seminars which are platforms for gaining new experiences and updating ones knowledge base.

**Capturing knowledge:** gathering existing and potential sources of information and knowledge. Keogh and Polanski (1998) argue that entrepreneurship is centered on a vision, that vision allows

the entrepreneur to see beyond the confines of limited resources and identify opportunities not hidden to others. In other to demonstrate this ability (students) entrepreneurs in training should be exposed to activities that will cultivate in them the ability to identify, develop and utilise local knowledge/information as marketable commodity. This can be achieved through the capture part of knowledge management.

**Creating knowledge:** this aspect of knowledge management inculcates in the students the ability to destroy pre-conceived ideas and knowledge; adapting an existing tool or practice to local needs; design and development of a new marketable content, product, business idea and project; hiring of employees/team members who challenge conventional wisdom or current processes and methods; conducting research-based analysis; part creating knowledge through learning and innovation. Brown and Ulijin (2004) assert that the act of entrepreneurship is essentially a process of exploiting opportunities that exist in the environment or that are created through innovation in an attempt to create value. The ability to be creative and innovative is a function of various factors which can be provoked by the desire to solve a problem, make a difference (create value). Anumu (2014) found from her study that the ability to promote entrepreneurship requires an enquiring mind which is one of the objectives of knowledge management.

**Sharing knowledge:** disseminating knowledge to other parties. The ability to disseminate knowledge and relevant information is vital for a successful business establishment. Information they say is the life wire of every organisation. Sousa and Almeida (2014) argue that in the training of entrepreneurs emphasis should be placed on leadership skills and interpersonal management practices that ensure project success. Leaders skills and interpersonal management practices also involves the ability of the entrepreneur to carry his subordinate along and the proper flow and circulation of knowledge and information that will bring about success of the organisation.

Training acquired under knowledge sharing will also create avenue for the entrepreneur to link and connect with a network of people with common interests. It will create room for interaction with local and international communities from where she/he can access and also share knowledge/ideas and information relevant to his interest. Here the service of the academic library can play a significant role in this aspect. The academic library is an acknowledged information broker that creates and leverage its knowledge base through the initiation of appropriate knowledge management practices (Maponya, 2004)

**Applying knowledge:** using available knowledge and information. The entrepreneur in training receives lessons on how to apply knowledge/information he has acquired. He receive evidence based guidelines and protocols developed by experts to improve on or create his innovations. According to Skyrn (1997) knowledge management involves the systematic management of vital knowledge and all the activities involved in the process of creating, gathering, organising, diffusion, use and exploitation. With knowledge management entails converting personal knowledge into corporate knowledge that can be widely shared through and diffused into an organisation and applied.

**Storing knowledge:** using knowledge repository to store and information and knowledge available. The knowledge management lessons will acquaint students with the knowledge of where to access relevant information. Recognised information repositories and centre such as the academic library. Entrepreneur in training needs steady supply of information to enable him/her build up and update his knowledge base. It is therefore of great importance that he/she uses the services of an information provider to achieve this goal. Over the years the management of

information has been regarded as the domain of academic libraries, hence librarians are information experts trained in the profession of information selection, search, organisation, package/re-package, preservation/storage and dissemination (Usha and Seebi, 2016). In the present "information age" and "knowledge-based economy" knowledge is considered as the driver of the economy and has become the most important asset of modern organisations. The success of the economy therefore depends on how best entrepreneurs effectively (organisations, individuals) gather, generate, use, leverage and apply knowledge to maximise profit (Bircham-Connolly and Corner, 2005). Knowledge management has been recognised to be vital in the success of organisations and has positive consequences for entrepreneurial development and innovation (Solajarvi, Furu and Sveiby, 2005). Maponya (2004) also describe knowledge management as a viable tool that improves the performance of entrepreneurs in the global economy.

### **2.3 Research objectives**

The study is guided by two objectives:

- a) to determine the level of understanding of knowledge management as it relates to entrepreneurship gained by students from lectures received at the polytechnic
- b) to establish the importance of knowledge management to the development of entrepreneurial skills.

### **2.4 Research questions**

The study will answer the following research questions:

- a) what is the students level of understanding of knowledge management they gained from lectures they received at the polytechnic?
- b) do students perceive knowledge management relevant to the development of entrepreneurial skills?

## **3. Research method**

The study adopted survey research using quantitative method of data collection using questionnaire. A sample size of 500 students was selected from all departments of the four schools in the polytechnic using a simple random system. The study included both ND and HND students who in their final year of study. This group of students were selected because they have received more lessons in entrepreneurship than HND 1 and ND 1 students and are in better position to give insight to students perception of the relevance of knowledge management to the development of their entrepreneurial skills and their general level of the understanding of knowledge management in respect to entrepreneurial development. The choice of simple random method is based on the fact that it can be used in a variety of situations as a reliable sampling method and it gives proper representation of the entire population (Marunda, 2004). 500 copies of questionnaires were distributed to students on campus in their various schools out of which 465 were returned. 224 copies were received from the school of business administration, 168 from the school of applied sciences and technology while 73 were received from the school of school of engineering. The disciplines under the school of business administration include - accountancy (ACC), business administration (B/A), banking and finance (B/F), office

technology management (OTM), mass communication (M/COM). Under applied sciences and technology we have - computer science (C/S), statistics (STAT), science laboratory technology (SLT). The school of engineering comprise of mechanical engineering (M/E), computer engineering (C/E), electrical engineering (E/E), welding and fabrication (W/F) and industrial maintenance (I/M). The response rate is 93% Data was analysed using simple frequency count and percentage and were presented in tables.

### 3.1 Data analysis

#### Response rate according to school

	<b>N=500</b>	<b>%</b>
School of business administration	224	44.8
School of applied sciences and technology	168	33.6
School of school of engineering	73	14.6
<b>Total</b>	465	93

As stated earlier responses were solicited from students randomly from the three schools of the polytechnic out of which 93% response rate was achieved. The response rate according to schools is presented in table 1 above.

**Table 2 showing students' level of KM practices acquired through lectures**

What is the student's level of understanding of the following KM practices	High		Neutral		Low	
	N	%	N	%	N	%
Knowledge/information location	90	19.4	122	26.3	253	54.4
Knowledge/information capturing	43	9.3	102	21.9	320	68.8
Knowledge/information creation	41	8.8	102	21.9	322	62.3
Knowledge/information sharing	63	13.6	101	21.7	301	64.7
Knowledge/information application	22	4.7	151	32.5	292	62.8
Knowledge/information storage	121	26.1	120	25.8	224	48.2

Respondents were asked to find out if KM was taught as part of instructions given to them in the course of their entrepreneurial lectures. KM practices adopted in this study include knowledge location, knowledge capturing, creation, sharing, application and storage as advanced by ECLAC, 2010

Table 2 shows that majority of the students have low understanding of knowledge management practices. 54.4%, 68.8%, 62.3%, 64.7%, 62.8%, and 48.2% respectively for knowledge/information location, capturing, creation, sharing, application and storage respectively. The second high scoring response is neutral. While those that claimed high understanding of the KM practices were the least. The analysis therefore show a low level

understanding of KM practices by the respondents. These KM processes are vital for the development of a skilled entrepreneur as innovative capabilities are enhanced when an entrepreneur is able to recognise the value of new, external knowledge/information, assimilate and apply it to commercial ends (Cohen and Levinthal, 2000)

**Table 3 Showing students' perception of km relevance to the development of entrepreneurial skills N = 465**

Item	Agree		Neutral		Disagree	
	N	%	N	%	N	%
Knowledge/information location know how is relevant to the development of entrepreneurial skills	402	86.5	53	11.4	-	-
Knowledge/information capturing know how is relevant to the development of entrepreneurial skills	411	88.4	54	11.6	-	-
Knowledge/information creation know how is relevant to the development of entrepreneurial skills	444	95.5	21	4.5	-	-
Knowledge/information sharing know how is relevant to the development of entrepreneurial skills among colleagues	428	92	37	8	-	-
Knowledge/information application know how is relevant to the development of entrepreneurial skills	436	93.8	29	6.2	-	-
Knowledge/information storage know how is relevant to the development of entrepreneurial skills	429	92.3	34	7.3	-	-

This questions were asked to examine respondents perception of the relevance of KM practices to the development of entrepreneurial skills. The results presented in table 3 shows that majority of the respondents perceive KM practices to be relevant to the development of entrepreneurial skills. While just a few maintained neutral grounds (11.4%, 11.6%, 4.5%, 8%, 6.2% and 7.3% for knowledge/information location, capturing, creation, sharing, application and storage respectively).

**Table 4. Knowledge management practices lessons received during lectures N = 465**

Item	Agree		Neutral		Disagree	
	N	%	N	%	N	%
Students have received training on how to locate knowledge/information relevant to the development of entrepreneurial skills	-	-	53	11.4	402	86.5
Students have received training on how to	-	-	54	11.6	411	88.4

capture knowledge/information relevant to the development of entrepreneurial skills						
Students have received training on how to create knowledge/information relevant to the development of entrepreneurial skills	-	-	21	4.5	444	95.5
Students have received training on how to share knowledge/information relevant to the development of entrepreneurial skills among colleagues	-	-	37	8	428	92
Students have received training on how to apply knowledge/information relevant to the development of entrepreneurial skills	-	-	29	6.2	436	93.8
Students have received training on how to store knowledge/information relevant to the development of entrepreneurial skills	-	-	34	7.3	429	92.3

This question was asked to find out if students received training or lessons in KM from lectures taught at the polytechnic. The result on table 3 reveals that none of the respondents agreed to have received training in any of the listed KM practices while majority disagreed and a few were neutral. The analysis shows that 86.5; 88.4; 95.5; 92; 93.8 and 92.3 disagreed for knowledge/information location, capturing, creation, sharing, application and storage respectively. It can therefore be concluded that KM practices are not taught to students at the Delta State Polytechnic Otefe.

#### 4. Conclusion

The findings of the study revealed majority of the respondents have low understanding of KM processes. Most of them confirmed that they have not received training in KM processes during lectures. It was interesting to find out that despite their low understanding of KM practices, students still perceive KM as relevant to the development of their entrepreneurial skills.

#### 5. Recommendation

The following recommendations are made based on the findings of the study.

The Delta state Polytechnic Otefe should as a matter of urgency incorporate KM in the curriculum of students to be taught together with entrepreneurship as the activities of the entrepreneur demands the use of knowledge and information.

It is also recommended that the Polytechnic take advantage of the services of the academic library and librarian who are perceived as knowledge and information creating organisations. The library is involved in the KM management therefore in a position to train students the process and practices of knowledge management.

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