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Infopreneurship Education and the Development of Business Skills among Pupils in Boki Local Government Area, Cross River State, Nigeria

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Abstract

Infopreneurship education is a field which has evolved from entrepreneurship education aimedat helping learners develop specialised skills to generate information resource and market it to create wealth. As this discipline gains traction in education, it raises questions as to whether it applies to primary schools in Boki Local Government Area (LGA), Cross River State, Nigeria to enhance learning and the abilities of pupils to create jobs in the future. A survey is consequently conducted to examine whether infopreneurship education influences the development of business skills among pupils in primary schools within the research site and is underpinned by the human capital development theory. Two research questionsand hypotheses were posed for the study. 1,200 pupils, including 600 girls and 600 boys, selected from six (6)public primary schools in Boki LGA participated. The Infopreneurship Education and Pupils' Business Skills Questionnaire (IEPBSQ) was used to generate data. The simple linear regression analysis was employed to analyse data via SPSS.Findings suggest that info-literacy and data marketing have significant influence on the development of business skills among pupils in primary schools in the research context. It is recommended that infopreneurship education programmes in primary schools should highlight info-literacy as a first step for children to develop business skills in data gathering. Also, a hands-on-task approach should be adopted for pupils to learn how to package data for market purposes.

Introduction

A new field called infopreneurship education is activating a shift in educationto reinforce entrepreneurial engagements, fosterskill acquisition and wealth creation to impact pupils. The conceptis a programmewhich has emergedto build the capacity of school children to engage in activities thatinvolve the generation and dissemination of useful information/data for economic purposes.It derives from three distinct disciplinary areas: 'information', 'entrepreneurship' and 'education', referring to a kind of human development programme which enables a person to identify a business opportunity and take advantage of it to produce information products and services; including information management (Nweze, 2018).Information is an essential aspect of human existence because communication is inexorably entwined to a functional living. That offersan opportunity for business and employment.Rising graduate employability and unemployment rates are raising serious concerns in the contemporary economic stories of developing nations and some forms of entrepreneurial efforts, like infopreneurship, are evolving to close the gap(Nyehe&Nwinyokugi, 2020).Implicitly, access to information is not just aboutthe creation of knowledge and awareness in society, but more importantly a business requiring a deliberate development of relevant skills in it for commercialisation. It leverages on the entrepreneurship education curriculum to introduce another culture of embedding info-business into the psyche and disposition (Fayolle &Gailly, 2015).) of the child right from the ground up.

Countries that embrace infopreneurship make good progress in combating the problem of unemployment and have impressive results(Alakbarov,2010) in national educational development as well as in transforming the marketplace. The infopreneurial knowledge and skills acquired by the pupilsmay arouse their interests and motivate them to futuristically become inclinedto info-business. Pupils who are attracted to infopreneurial programmes learn in different ways. In addition toabstract learning, these children are also likely to committo acquiring capabilities to utilise available resources within their environment to create and innovate materials which are of information value for sale. Impliedly, cognitive abilities are not meant to be merelyin academics. Rather, they shouldalso serve as a crucial tool forincreased productivity, income generation and as a means of making the functionality of the child have economic value in the society. From the rightist perspective, however, it is an issue which challenges legal provisions that prohibit the participation of children in income generation activities and/or the exploitation of minors by adults for economic gains as enshrined in article 36 of the Convention on the Rights of the Child (CRC)1989 (United Nations, 2009) and the Child's Rights Act 2003 of Nigeria (National Human Rights Commission, 2003).

The infopreneurship education research, in this context, does not make anyadvocacies, whether subtleor not,to contravenethe child's rights statutes. Instead, it draws your attentionto the notion as a human capacity development programme which prepares the child to build his or her own economic pathway for life in the sector. Brown (2000) human capital postulation offers a germane theoretical underpinning of the concept. This theory highlights that education is a tool for improving human capital, stimulatingentrepreneurial creativity (Fayolle &Gailly, 2015).), labour productivity and boosting the levels of technology across societies. Furthermore, it includes increase future productive capability at the expense of current consumption, and the provision of education is seen as a productive investment in the human being.It follows that,through infopreneurship education, the Nigerian youths in Boki Local Government Area (LGA) can acquire skills which are a form of capital,thus enabling them to establish preferable info-businesses of their own that canraise their future income and lifetime earnings.Askilfulindividual who is confronted with low prospects for wage employment andunderemployment is likely to turn to self-employment as a viable alternative(Ivwurie&Ocholla, 2016).

The programme extends the boundaries of the parent field, entrepreneurship education, allowing the learner to acquire specialised competencies for a specialised kind of business.The development of children under such curriculum provision has the propensity to lead to the production of information resource providers in the long term. Corroborating this viewpoint,Dangani and Moruf (2015) stated that substituting the conventional classroom with a business environment, theoretical learning with practical learning experiences culminates in the graduation of pupils who would be called infopreneurs.According to Hussin et al.(2022), information is a critical component of today's knowledge-based economy, it is constantly evolving and is dynamic. Information and its use have developed into a valuable resource, earning it a place alongside previously recognised components of production such as land, labour, money and the entrepreneur. ForMomohjimoh and Seidu (2023), the concept is a panacea for the delivery of sustainable library services.

Beyond library services is the fact that the programme helps pupils develop a mixture ofskills such as info-literacy,data marketing, information intelligence etc.Drawing from Dike and Amucheazi (2021), info-literacy is an art which enables access to information resource in oral and printed forms; the ability to identify, gather, evaluate and share information with others to match the technological needs of the 21st century.Critics would debate that literacy is limited to reading and writing. Its definition nonetheless is not finite but stretches beyond those traditional boundaries to include the components listed earlier. More so, it is an 'art' because it applies creative, innovative and aesthetic features in information processes. Again, a work of art, in the economic sense, carries a price tag. As such, the field opens access to Information and Communication Technology (ICT) so that children can utilise digital tools, manipulate these devices and be exposed to a range of hands-on-skills which are valuable for business (Durodolu& Mojapelo, 2020). The education benefit of info-literacy is that it ensures the production of knowledge and academic successes for pupils. What may pose a wedge on these advantages is that primary schools in rural Nigeria are poorly resourced(Ewa & Ewa, 2025).ICT resourcesmay be limited in schools located in these areasand that may affect info-literacy programmes.

Children who received this kind of education maylearn the rudiments of info-business operations in e-book publication, e-consultancy, e-newsletter creation, online issue resolution, research proposal drafting and so on(Dewah& Mutula 2016).Having infopreneurship education in the primary education curriculum guarantees the making of a beginner infopreneur who can partner with others to enrich the process of commodifying the informationresource for the marketplace. In other words, practices within the infopreneurship space which tends to pushthe role of the child down the priority order blocks the marketplace from having an important merchant. So, behaviours whichunderestimate the value of the child in national development plans indicate ignorance and amount to a disservice to society.

A significant number of knowledge seekers and prospective knowledge sellers appear to have inadequate platform or not to have found the appropriate platform to achieve their purposes. Infopreneurship educationis an empowerment platform andthe young recipients of it canincrementally develop intoa highly productive and flexible workforce. It takes roots in the potentials of a budding population to ensure the creation of a viable economyespecially in areas where wealth creation hasover time beenregarded as the prerogative of the adults. However, in the age where there is a surge in skill acquisition acrosshuman development programmes, info-literacycan motivatea precision-basedadjustment of theinfopreneurship education curriculumfor greater efficiency. It is implicativetherefore that a re-patterning of classroom instructionhas become necessary toprepare pupils to be able to channel their resources into a more specific and targeted entrepreneurial venture.According to Salim et al. (2018), info-literacy is a skill which helps pupils locate and access data because the lack of info-skills is a barrier to gathering and retrieving information. Well informed children canformulate the information in a meaningful and useful manner. In other words, info-literacymakes for the construction of data by pupils for economic purposes and highlightsthe understanding of the mechanics of a data set and data stream.

Consequently, the field is a necessity-driven model in information practice which is profit oriented in nature, which uses digital devices not only to generate, but to also package and sell information products and services with the view to generate income and profit (Kazungu, 2021). Thus, the competencies which derive from this kind of education transcend info-literacy into the realm of data marketing.The marketing of data is a key area of infopreneurship education which exposes school children to the methodsthat can facilitate the identification of a market and actual delivery of info-services to end users. It is a part of information sharing which, in this case, is not merely for awareness,

but particularly to createmonetary value. Huerta et al. (2023), work on data mining has a nexus with this issue. Data miningis a practice where you accumulate large-scale data, order and filter the data to meet the personalised needs of each customer. Data marketing at the primary level enables the production of 'kiddie data miners' who are entrepreneurially conscious.In this way, the kids take interest to engage in computational processes that would lead them to various market strategies e.g. mobile marketing (Lu et al., 2017), data advertising, content creation, data branding andmedia marketing.

As entrepreneurship education is being unbundled it is leading to the development of infopreneurship education as a new human capital development strategy to widen the economic space for would-be-business-operators. It serves as an invitation for children to use their education to also actively participate in the field to generate information resources, package it and sell to earn income. Furthermore, it is a sustainable economic approach for addressing unemployment and poverty in the country. Much of the existing practices, however, suggest that infopreneurship education has yet to gain substantial attention in primary education and that tends to affect the opportunities of pupils to develop relevant skills required for info-business in Boki LGA. There seems to be an info-business gap, a situation that surmises that children in the geographical area are being left behind in terms of education about and subsequent engagement in infopreneurial activities. As a result, that appearsto subject themto poor learning experiences and leave them unequipped with specialised business skills for the future.

Purpose of the study

This study examinedwhether infopreneurship education has influence on the development of business skills among pupils in public primary schools in Boki LGA of Cross River State, Nigeria. In specific terms, it inquired whether:

1. Info-literacy influences the development of business skills among pupils.
2. Data marketinginfluences the development of business skills among pupils.

Research questions

These questions were posed for the study:

1. To what extent doesinfo-literacy influence the development of business skills among pupils?
2. What is the extent to which data marketing influence the development of business skills among pupils?

Research hypotheses

These null hypotheses were formulated for the study:

H_{O1}: Info-literacy has no significant influence on the development of business skills among pupils.

H_{O2}: There is no significant influence of data marketing on the development of business skillsamong pupils.

Research method

The survey isadopted as the research design (Asim et al., 2017) to providea useful picture that reflectsthe characteristics and actions of the population and enables the application of questionnaires (Zimba & Gasparyan, 2023) to generate numerical data from entities that belong to similar population. Also, the design enablesinvestigations intocurrentviews, practices,dispositions, beliefs, and facilitate inferences.It is implicit therefore thatother research designs are jettisonedas being unhelpful in the context. This is an inquiry which is being conducted in Boki LGA, Cross River State, Nigeria. Boki is among the 18 LGAs,located in the central senatorial district of the state. Boje is the administrative capital. She shares borders with Ikom, Ogoja, Obudu, Etung, Obanliku LGAs, and the Republic of Cameroon.

Boki has a largeyoung population, most of whom are children. Government had to establish state primary schools in two geopolitical divisions of Boki: Boki 1 and Boki 2, to cater for the human capital developmentneeds of these children.56 primary schoolscomprising 30,600 pupils, including 16,900 girls and 13,700 boys, were enrolled in the schools(Cross River State Universal Basic Education Board - CRSUBEB, 2022). Six (6) of these schools, three (3) per division, were selected via stratified sampling (Asim et al., 2017) for the study. The same sampling method was also applied to select 1,200 pupils, made up of 600 girls and 600 boys,from across the six schools to participate.The sample size is to enhance the position for generalisability. Only childrenaged from 9-10+ years old in primary 4 and 5 participated. The Infopreneurship Education and Pupils Business Skills Questionnaire (IEPBSQ) was administered to generate data from the respondents.IEPBSQ by design is a-20-item data collection instrumentwhich contained therespondents' demographic and scaling item sections. IEPBSQ was validated by professionals in Primary Education, Library and Information Scienceas well as psychometricians. Thereafter, the tool was used in a pilot study in Ikom LGA. Data arising therefrom was analysed via Cronbach Alpha, and that produced a result of 0.82, indicating that it is reliable for use in the primary study.

Ethical considerations

Data collection activities took place with the authorisation ofCRSUBEB, school heads, teachers and parents. Respondents gave informed consent to participate andthey participated free willingly. One school was kept on standby in each division as contingency plan to ensure the research continues,in the event of an unpleasant circumstance.Data is confidential and anonymous.

Results

A-five-month calendar was created to guide fieldwork in the main study. Three (3) months,six weeks for schools in each division, were earmarked for data generation. Data analysis and was done within two (2) months.Descriptive statistics was used to analyse respondents' demographic data, while simple linear regression analysis was deployed to

analyse databased on stated research hypotheses.TheStatistical Package for the Social Sciences (SPSS) was used to facilitate data analysis as shown in tables 1, 2 and 3:

Table 1
Respondents' Demographics

S/N	Item	Variable	No. of Respond	Percentage (%)
1	Gender	Girls	600	50
		Boys	600	50
Total			**1,200**	**100**
2	Age	9years old	926	77.2
		10+ years old	274	22.8
		Total	**1,200**	**100**
3	Class	Primary 4	600	50
		Primary 5	600	50
	Total		**1,200**	**100**
4	Name of school:	A	200	16.6
		B	200	16.6
		C	200	16.6
		D	200	16.6
		E	200	16.6
		F	200	16.6
Total			**1,200**	**100**
5	Geopoliticaldivision	Boki 1	600	50
		Boki 2	600	50
Total			**1,200**	**100**

Data on table 1 indicates that an equal representation of pupils occurred across different fieldsin the respondents'demographics, except for age. This item illustrates that 926 nine-year-olds, representing 77.2% while 274 of their peers aged 10+ years old, representing 22.8% also took part. That shows an overrepresentation of the nine-year-olds in the study compared to theirclassmates.

Table 2
Regression of info-literacy and the development of business skills among pupils

R	R Square	Adjusted R Square	Std. Error of the Estimate
.075[a]	.008	.005	11.24652

Sources of variation	Sum of Squares	df	Mean Square	F-value	p-value
Regression	682.147	1	341.240	3.026	.016*
Residual	74236.214	480	120.452		
Total	74918.361	481			

Variables	B	Std. Error	Beta	t-value	p-value
(Constant)	42.341	2.260		18.601	.000
Info-literacy	.412	.130	.082	.4.012	.031

*p<.05

Data on table 2 illustrates that an R-value of .082 was obtained, giving an R-squared value of .008. It implies that the variation in info-literacy accounts for about 8% of the total variation in the development of business skills among pupils, thus the p-value (.016) associated with the computed F-value (3.026) is less than .05. Consequently, the null hypothesis is ditched. This indicates thatinfo-literacy significantly influences the extent to which pupils can develop business skills. Thus, training of pupils on info-literacy, as an aspect of infopreneurship education, enables them to develop business skills in that field. To test the significance of the combination of both the regression constant (42.341) and the regression coefficient (.412) making a significant contribution in the prediction model, that is, prediction of the development of business skills among pupils (t = 18.601 & .4.012, p =.000 <.05), thus the presence of info-literacy. The mathematical relationship is depicted by the following equation y = 42.341+.412x where y is info-literacy and x isthe development of business skills among pupils.

Table 3
Regression of data marketing and the development of business skills among pupils

R	R Square	Adjusted R Square	Std. Error of the Estimate
.075[a]	.007	.005	11.24652

Sources of variation	Sum of Squares	Df	Mean Square	F-value	p-value
Regression	661.114	1	321.211	4.10	.014*
Residual	72143.017	480	121.302		
Total	72804.131	481			
Variables	B	Std. Error	Beta	t-value	p-value
(Constant)	38.410	2.218		16.421	.000
Dat marketing	.401	.124	.071	.4.03	.028

*p<.05

Data on table 2 illustrates that an R-value of .071 was obtained, giving an R-squared value of .007. It means that the variation in data marketing isresponsible for about 7% of the total variation in the development of business skills among pupils, thus the p-value (.014) associated with the computed F-value (4.010) is less than .05. Consequently, the null hypothesis is discarded. This indicates that data marketing significantly influences the extent to which pupils can develop business skills. Thus, training of pupils on data marketing, as an element of infopreneurship education, enables them to develop business skills in that area. To test the significance of the combination of both the regression constant (38.410) and the regression coefficient (.401) making a significant contribution in the prediction model, that is, prediction of the development of business skills among pupils (t = 16.411 & .4.03, p =.000 <.05), thus the presence of data marketing. The mathematical relationship is depicted by the following equation y = 38.410+.401x where y is data marketing and x is the development of business skills among pupils.

Discussion of findings

The finding for hypothesis one suggests that info-literacy has significant influence on the development of business skills among primary school children in the research area. It is so because, according to Dike and Amucheazi (2021), info-literacy, as an aspect of infopreneurship education,allows pupils access to information resources in oral and printed forms as well as the ability to identify, gather, evaluate and share information with others to match the technological needs of the 21st century.Furthermore, such access helps the children to utilise digital data tools, manipulate these devices and be exposed to a range of hands-on-skills which are crucial for business (Durodolu& Mojapelo, 2020).

Also, the result for the second hypothesis indicates that data marketing significantly influences the development of business skills among pupils in the research context. It is a finding which is consistent with the perspective of Kazungu (2021) that the use of digital devices is not only to generate, but to also package and sell information products and services with the view to earn income and make profit. The practice requires learning about the importance of investing in data mining(Huerta et al. 2023), for pupils to be able to accumulate large-scale data, order and filter the data to meet the personalised needs of individual customer. More so, the children may be prepared to engage in computational processes that would lead them to various market strategies e.g. mobile marketing (Lu et al., 2017), data advertising, data branding, content creation and media marketing.

Conclusion

Infopreneurship education is a growing field in education which possesses the capacity to equip young learners with lifelong business skills. Its introduction into the primary education curriculum is so that pupils can learn to develop specialised skills at the foundational level which are useful in the marketplace and sustainable in economics. Children can now take the opportunity to think like entrepreneurs and willingly try new things. The sector has therefore emerged to draw attention to the fact that while information is essential for communication, it also creates chances for the development of entrepreneurialaptitudes in the young population. As stakeholders commit to using this strategy to offer long term solutionsto the issue of unemployment in the country, it is nonetheless important to also point that the appropriate implementation of the programme would serve to enabling the educational package to achieve the intended objectives in primary schools.

Recommendations

Based on the findings above, the following recommendations were made:

1. Infopreneurship education programmes in primary schools should highlight info-literacy as a first step for children to develop business skills in data gathering.

2. A hands-on-task approach should be adopted for pupils to learn how to package data for market purposes.

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