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CHARACTERIZING EXPECTED AND ACTUAL RETURNS TO EDUCATION: AN EMPIRICAL EVIDENCE

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ABSTRACT

The study analyzed the return to masters and doctoral return and characterized perceived and actual return to education in Anambra state, Nigeria. 2 research questions guided the study, while 1 hypothesis was tested at 0.05 level of significance. The quantitative method was used to analyze the demographics as well as the income differentials between masters and doctoral degree holders; while the qualitative method was used to ascertain the perception of the respondents on the perceived and actual returns from investment in postgraduate education. The population comprised 2432 respondents who are holders of Masters and Doctoral degrees, from the two universities in the state, who have worked for a minimum of 4 years and are resident in Anambra state. The sample of 337 respondents was drawn using Yamane's formula with a confident level 95% and an error 5%. Interview guide was developed by the researcher. The data collected were analyzed using thematic approach. The findings revealed that cost of postgraduate education was higher in federal university than in state university. It was found that that the mean rate of returns to Masters and Doctoral education in Nigeria universities differ significantly based on university type. Also, differences exist among perceived and actual return to education. It was recommended that the institutions of higher level should possibly review some fees charged on postgraduate education in the state to reduce cost of the programme among others.

Keywords: *Perceived return, actual return, investment, postgraduate education,*

Introduction

Acquiring higher degree or education is regarded as an investment in human capital. Investment in education yields future returns. Acquiring higher degree or education is regarded as an investment in human capital. It is considered as a worthwhile investment because it increases the stock of human resources in any given society. More so, it leads to the production of educated population, and an educated population is a productive population. Generally, investment in education emphasizes how education increases the level of cognitive, productive and efficient human capability. However, this investment in education involves costs in terms of money, time, efforts and materials used up in the process of acquiring education.

Theoretical Review

The theory of investment was propounded by Fisher (1930) and Keynes

(1936) and. According to the theory, investments are made until the present value of expected future revenues, at the margin, is equal to the opportunity cost of capital. More so, the theory postulates that any investment that yields greatest return is potentially beneficial to execute. Accordingly, investment plays vital role in income determination and income growth. This means that one's level of investment in education can be used to ascertain the level of income the individual and the ability of such individual to increase his/her income base.

Literature review

Return to education has been defined diversely by scholars to include both monetary and non-monetary benefits accruing to an individual after acquiring education particularly at higher lever. Research evidence has shown a link between investment in education and returns to education (Tiamiyu & Raji, 2019). This supposes that investment in education yields returns. According to scholars, return is the reward which could be in the form of earnings and other social returns like honour, status and accommodating attitude. Their definition indicates that returns on education yields both monetary and non-monetary rewards. Further, it posited that returns on investment can be measured both in monetary and non-monetary terms. On the other hand, Psacharopoulos and Patrinos (2020) posited that return on investment in education is very similar to any other investment. It is a summary of the costs and benefits of the investment incurred at different points in time, and it is expressed in an annual (percentage) yield, like that quoted for savings accounts or government bonds. Their concept of returns on investment in education is likened to that of any other investment such as savings, bonds which is an indication of complexity. However, this assertion focused on only monetary rewards, while ignoring the non-monetary aspects of rewards to education. More so, in the findings of Tiamiyu and Raji (2019), returns to education was viewed from the context of earnings and that earnings increase as the level of education increases. This position is rather isolated and focused solely on financial gains. Umar, Mohammed and Yusuf (2015) defined returns to education as benefits of education which accrue to the individuals and the society at large. This entails that rewards from investment in education occurs at two levels- individual (private) level and society (social), however, it failed to classify what constitute benefits to education. On a contrast, Gunderson and Oreopulous (2020) broadly classified benefits of education into two types – monetary and non-monetary; and linked it with the skills individuals received which increased their productivity as well as earnings at the workplace.

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for savings accounts or government bonds. Their concept of returns on investment in education is likened to that of any other investment such as savings, bonds which is an indication of complexity. However, this assertion focused on only monetary rewards, while ignoring the non-monetary aspects of rewards to education. More so, in the findings of Tiamiyu and Raji (2019), returns to education was viewed from the context of earnings and that earnings increase as the level of education increases. This position is rather isolated and focused solely on financial gains. Umar, Mohammed and Yusuf (2015) defined returns to education as benefits of education which accrue to the individuals and the society at large. This entails that rewards from investment in education occurs at two levels- individual (private) level and society (social), however, it failed to classify what constitute benefits to education. On a contrast, Gunderson and Oreopulous (2020) broadly classified benefits of education into two types – monetary and non-monetary; and linked it with the skills individuals received which increased their productivity as well as earnings at the workplace.

From the above, returns to education has been conceptualized diversely without distinctive characteristics. However, there is a consensus among scholars that education yields certain returns to the individuals who acquired it, (Boutayeba, 2017; Fngliang, Manli and Morgan, 2018; Oyetakin, Okedeji & Akinbulumo, 2019; Houcine & Zouheyr, 2019, Gunderson & Oreopuluos, 2020; Patrinos & Psacharopoulos, 2020; Henderson, Souto & Wang, 2020; Sargsyan, 2020; Li &Wang, 2021), but these scholars failed to characterize the determinants of non-monetary returns of investment in education in order to enhance understanding of the phenomenon in education. This study is aimed to fill this gap.

Contextually, educational returns are those tangible and intangible rewards, benefits and advantages an individual receives as a result of his/her investment in education. In other words, educational returns are those benefits accruing from one's investment in education or resulting from one's education. Since, the decision to invest in education is often influenced by the returns an individual expect to gain or receive at the completion of his/her education (Shagnik Chakravarty & Anvi, 2021), one begins to question the true outcome of investment in education if education actually delivers the perceived or expected returns to the individual in particular and society at large. This question has been exasperated by the increasing rate of unemployment among graduates. It has been reported that the unemployment rate in Nigeria was 33 per cent in 2020 and more than 40 per cent of youths are unemployed (National Bureau of Statistics, 2020; Adesina, 2022). This is even worrisome as universities continue to turn out large numbers of graduates annually and possibly increasing the number of unemployed graduates in the country. This is in tantrum with Jote (2017) who asserted that universities produce dozens of graduates every year, which implies that many graduates are left without a job for a long time; and perceived graduate unemployment as a failing returns on a country's and individual investment in higher education

(Demissie, Herut, Yimer, Bareke, Agezew, Dedho, & Lebeta, 2021). The scholars further noted that being unemployed for an extended time after graduation has negative consequences in terms of higher education outcomes, implying that unemployment after higher education is a 'wasted' investment. However, this is not to say that all postgraduate graduates are unemployed. Some were gainfully employed before the commencement of their postgraduate programme, prompting the need to ascertain their expectations from investment in postgraduate education.

Studies have shown that despite the investments in education at individual level particularly, joblessness, long-time earning loss, financial hardship, among others deluded the rewards from it (Demisie et al, 2021). This implies that there is a gap between the expectation of the reward from investment in education and the actual outcomes. This is supported by Shagnik et al (2021), who posited that there exists a difference between perceived returns to investment in education and the real returns to it. Based on the above, returns to education can be categorized into two: expected and actual returns to education.

According to Sequeria et al (2016), it is the returns perceived by students and their parents that end up influencing actual educational decisions. They added that these perceptions are usually formed under uncertainty and limited information. They concluded that inaccurate perceptions about returns to education can distort the demand for schooling, affect future labour market outcomes, and keep average educational attainments low. Though, the terms 'perceived and real' returns to education have been used by the scholars, (Estrada & Gignoux, 2017; Shagnik et al., 2021), the authors added that the returns to education, is therefore, an important variable which influences schooling decisions. However, the terms have neither been defined, characterized distinctively nor properly embedded into education to broaden understanding of the concept. This research intends to fill the gap.

Characterizing the expected and actual returns, this study will draw emphasis from dictionaries since there are no existing definition on the terms. However, it is important to state that these terms have been used by scholars in the field of education (See Estrada & Gignoux, 2017; Shgnik et al, 2021). From Oxford dictionary, 'expect' *implies "something to believe; suppose or assume; regards as likely to happen, do or be the case. It is something require as appropriate or rightfully due; to fulfil an obligation; to look out for, to anticipate, believe strongly*, while 'actual' means *existing in fact, real, now, current'.* Similarly, Cambridge dictionary define *'expect' 'to think or believe that something will happen or that someone will arrive; normal and what usually happens'*; while 'actual' implies *'existing in fact, true, real or exact'*. From the perspective of Macmillan dictionary, 'expect' connotes *'to think that something will happen, right or reasonable'*; while 'actual' is *'used for emphasizing what is really true or exact compared with a general idea'*. More so, to Merriam-Webster dictionary, 'expect' implies to *'to consider probable or certain, to consider reasonable, due or necessary, to consider bound in duty*

or obligated, to anticipate or look forward to the coming or occurrence of'; while 'actual' implies *'existing in fact or reality, not false or apparent'.*

From the definitions of expect, three phrases stand out which are, '… *likely to happen', 'probably happen' and 'anticipate'*. Marrying the two concepts 'expected' and 'returns' in education, it can be defined as the rewards an individual anticipate from investment in education after the completion. In other words, expected returns are those perceived returns an individual will likely receive which could be either monetary or non-monetary or both after acquiring knowledge and skills via education. The monetary returns include salary, lifelong earnings, allowances among other financial benefits; while non-monetary returns include knowledge, skills, social capital, improved capacity, honour, among others.

From the 'actual' perspective, it implies true, real and factual. The term 'actual' is explicit as it expresses 'exactness' and connects 'reality'. Therefore, actual returns can be defined as the real returns to education. It is the exact benefits -monetary and non-monetary benefit an individual eventually receives after acquiring education. Simply, actual returns to education are the real benefits or returns an individual has or receives after his/her education such as immediate employment, prompt salary payment, improved lifestyle, improved health, financial capacity among others. This has proven that the expected which is the perceived returns and actual returns to education differ considerably, both in context and in certainty, and could affect decision to undertake any investment in education. This is in agreement Babalola, (2015); McRae, (2019) and Shagnik, et al, (2021) who noted that an individual will undertake investment that maximizes his/her returns or yields greater returns to his/her investment in education. This is in tantrum with Shagnik Chakravarty and Anvi, (2021) who stated that the returns to education, is therefore, an important variable which influences schooling decisions. Returns to investment in education occurs at two distinct levels: social and private.

Social returns to education are those benefits that accrue to the state or the society. While many researches on investment in higher education (HE) in Nigeria university, polythenic and colleges of education emphasized social returns to university and polytechnic education using Mincerian earning model (Mohammed & Abdul Hakim, 2014; Elia & Mika, 2012; Amaghionyeodiwe & Asinubi, 2007; Okuwa, 2004; Aromolaran, 2002; Samuel, 1987; and Alani,1988), few others have focused on costs, private costs, comparative private costs of higher education and indirect unit cost of university education in higher education (Olakunle & Panda, 2011; Saruparia & Lodha, 2013; Efanga & Idante, 2014; Jaworska, 2015; Mihaela, Emilia & Drucia, 2015; Idowu, Dada, Otunaiya, Olugbenga and Olognon, 2018; Gobinath, Tharshaa, Dheerasekara, Gunawardeena, Jayakody & Lokeshwara, 2019; Tiamiyu and Raji, 2019; Tonwe, 2020), without studying them at postgraduate level, except Adu, and Ajayi (2021) who studied cost-benefit analysis of Ph.D programme in university but no study (to the best of the knowledge of the researcher) has

been carried out on classifying perceived and actual returns from postgraduate education in universities in Anambra state. Hence, this study aimed to bridge this gap in knowledge.

Studies have proved that significant private benefits exist in schooling investment and that education could generate modest or large private benefits ((Psacharopoulos & Patrinos, 2019; Patrinos &Tinsel, 2019; Tiamiyu & Raji**,** 2019; Gobinath, Tharshaa, Dheerasekara, Gunawardeena, Jayakody & Lokeshwara, 2019, Shagnik & Avil, 2021). This showed that returns on education directly relate to additional years of schooling and increases as the level of education increases. It follows that after acquiring a postgraduate degree, it is anticipated that it will increase the chances of the individual(s) being employed, or gainfully employed, have long life earning, financially stable, contribute actively to the society among others, but this is often not the case.

Problem statement

It has been observed that after making huge investment in postgraduate education, many master's degree holders are still not employed gainfully. Some are still in search of jobs while others are in menial jobs meant for lower qualifications. Even, those with doctorate degrees who are employed have not fully maximized the increasing returns on their investment in education. More so, individuals with postgraduate education still experience financial constraints due to unemployment, not able to participate actively in the growth of the economy and the society. Even, they are being ridiculed by those who have little or no form of education but have better/healthy lifestyle and financially stability. This situation seems to depict a dichotomy between the expectations of postgraduate education and the actual returns from postgraduate education. It shows that the perceived expectations for postgraduate education may not be the actual or real benefits from investment in postgraduate education. It is against this backdrop that this study seeks to characterize the expected or perceived returns to education and the actual/real returns to education from investment in postgraduate education in Anambra state.

Research question

1. What are the mean return to Masters and Doctoral education based on the university type?
2. Is there any difference between perceived and actual return to postgraduate education**?**

Hypothesis

1. There is no significant difference between the mean return to Masters and Doctoral education based on the university type.

Methods

The research design used for the study was a mixed method comprising quantitative and qualitative. The quantitative method was used to analyze the demographics of the respondents, and the cost components of postgraduate programme, while the qualitative method was used to ascertain the perception of the respondents on the expected and actual returns from investment in postgraduate education. The

deliberate choice for adopting qualitative approach is formed by the need to give participants an opportunity to have their voices heard and to ascertain whether their decision to invest in postgraduate education was informed by their perceived rewards derivable from postgraduate education. The interview was conducted using eight focus groups. The participants were interviewed to describe their expectations before the commencement of their postgraduate programme and their actual rewards after the completion of the programme. The responses were transcribed and thematically analysed (Ryan, 2007). To do this, responses were categorized into themes. This design was deemed suitable for the study because it provided thorough, in-depth, comprehensive and well-ordered information concerning the costs, as well as expected and actual returns on investment in postgraduate education in Anambra state.

The population of the study comprised 2,432 respondents. The respondents were holders of masters and doctorate degrees who must have graduated from postgraduate education at least minimum of two years for masters' holders and four years for doctorate holders. In addition, the respondents must have graduated from the two universities in the state- Nnamdi Azikiwe University and Chukwuemeka Odumegwu Ojukwo University. Also, the respondents must have had at least four years of working experience and must be resident in Anambra state. The sample for the study comprised 337 respondents who are holders of masters and doctoral degrees. The sample of 30% was composed using Yamane's formula with a confident level 95% and an error 5% (P = 0.05). The choice for 30% is in line with Nworgu (2015) who recommended that 30% to 80% of the population is adequate for a research work if the parameters of the population must be fully investigated. All the 337 respondents met the conditions specified and were drawn for the study. A semi-structured. interviews questionnaire/ guide was used for data collection. The interview guides were piloted with four doctoral degree holders and four master's degree holders from two of the departments that were not part of this study.

After the transcription of the interviews, the transcripts were given to the participants for checking as suggested by Yin (2003); who posited that it was relevant in ensuring construct validity. Only six returned the feedback with minor corrections and additions. Thematic analysis was used for analysing the interview data. Thematic analysis is a search for themes that emerge as being important to the description of the phenomenon (Daly, Kellehear, & Gliksman, 1997 cited in Fereday & Muir-Cochrane, 2006). The thematic approach is useful for theorizing across a number of cases – finding common thematic elements across research participants and the events they report (Riessman, 2005). Thematic analysis was done in four stages. These stages included; developing codebook, testing the reliability of codes; summarizing data and identifying initial themes; applying codes; connecting codes and identifying themes. The codes are career development, programme discouragement, programme challenge, lack of employment, employment minority, certificate employment, programme favourable, programme unfavourable,

productivity, prospects and programme realization were modified after reading the interview transcripts. A code is a word or an abbreviation sufficiently close to that which it describes for the researcher to see at a glance what it means. While categories are the group of constructs or key features of the text, showing links between units of analysis (Cohen, Morrison & Manion, 2007). All interviews were fed into the Qualitative Data Analysis Miner (QDA Miner version 3.2). Codes were developed and assigned to the text segments and retrieved using "code retrieval" component of the QDA. This method has been used to gain meaningful insight into the field of education by Vockell & Ashare (1997), Wilson (1990), Philips, Ingram, Smith and Mindes (2003), Holbrook, Bourke, Lovat and Fairbairn (2008), and more recently by Odimegwu (2012, 2021). All codes developed and stored in the codebook were assigned to the various text segments. In the interview transcripts, the units analysed were the sentences and not the linguistic or structural aspects of the interview. Six interview transcripts (3 doctoral degree holders and 3 from master's degree holders) were converted to QDA projects and configured in such a way that support login. With the multi-user settings and 'hide all coding made by other users' option, the researcher was able to login as independent coder and also denied access to the previously assigned codes. The process was repeated after a week, and used the code agreement option to obtain the intra-coder agreement. Percentage agreement was 87.5% for doctoral degree holders and 82.4% for master's degree holders. The interview questions are 15 in all and will elicit discussions on expectations for the postgraduate programme and the eventual benefits after the postgraduate education. The duration of the interview ranged between 17 to 40 minutes. The participants were notified of the use of digital audio recorder. The location of the interview was online and offline based on the preference of the participants. This is in line with the assertion of Yin (2003), that in interviewing the key persons, you must cater to the interviewee's schedule and availability. To this end, the venue for the interview varied across the participants.

Result of Quantitative Data

What are the mean return to Masters and Doctoral education based on the university type?

Table 1: The mean return to Masters and Doctoral education based on the university type

University Type	N	Return Rate X	difference X
State	202	6,481,188.12	s
			4,438,811.88
Federal	135	10,920,000.00	

Table 17 shows that the mean return to Masters and Doctoral education in Nigeria universities for state universities is N6,481,188.12 and that of the federal universities stood at N10,920,000.00 with a difference of N4,438,811.88.

Null Hypothesis 1: There is no significant difference between the mean return to Masters and Doctoral education based on the university type.

Table 2: t-test on the mean return to Masters and Doctoral education based on the university type

Source of Variation	N	X	sd	df	t.cal	P≤	Remark
State	202	6481188.12	4440669.42				
				335	5.191	0.000	S
Federal	135	10920000.00	10879014.44				

Table 2 reveals that at 335df and 0.05 level of significance, the calculated t5.191 with Pvalue 0.000 which is less than 0.05, the null hypothesis is not accepted. Therefore, the mean return to Masters and Doctoral education in Nigeria universities differ significantly based on university type.

Result of Qualitative Data

Table 22: Thematic analysis of perceived and actual return of Masters and Ph.D

	Category	Code		Count	%		Cases
1.	Career_Dev	Actual Return	44	18.6		1	
2.	Prog_Fav	Actual Return	20	8.4		1	
3.	Prog_Realization	Actual Return	6	2.5		1	
4.	Prog_Recognition	Actual Return	11	4.6	1		
5.	Prog_Requirement	Actual Return	19	8.0	1		
6.	Cert_Employ	Actual Return	18	7.6		1	
7.	Prog_Product	Actual Return	25	10.5		1	
8.	Prog_Fin_Gain	Actual Return	2	0.8		1	
9.	Employ_Lack	Perceived Return	22	9.3	1		
10.	Employ_Limited	Perceived Return	10	4.2		1	
11.	Employ_Prospect	Perceived Return	36	15.2		1	
12.	Prog_Wastage	Perceived Return	11	4.6		1	
13.	Prog_Nonfin	Perceived Return	13	5.5	1		

From the result above, it shown that career development is rated as the highest in categories at 18.6% describing postgraduate education as enhancing knowledge, competencies and skills, for professional growth, career advancement, and self-actualization, and self-improvement. This is followed by programme productivity which is described as improving the skills, competences, decision making ability, knowledgeability and increased performance output as improving the individuals and rated 10.5%, programme favourable with 8.4 is described as the values of the programme in acquisition of competence, knowledge, skills, confidence, experiences, intellectuality and

programme requirement with 8.0; while financial gain rated lowest with 0.8 % and described in terms of not being able to geometrically increase their financial gain in form of increase earning and promotional allowances.

In addition, the result revealed that programme prospect is rated 15.2% which holders described as their expectation for embarking on the programme in terms of job employment, increased income, financial stability. 9.3% described as not having employment, financial gains before and after graduation, and not being able to use the certificate acquired to secure a job but resorting to personal business to self-employed. 4.2 % described employment opportunity as limited after the completion of postgraduate education. While 4.6% as not securing jobs after the programme and spending two or more years before securing job opportunity. Finally, with 5.5% described the postgraduate education not being able to increase their financial gains as additional qualification not translating to additional gains or finances.

Therefore, it can be concluded that the differences exist between the perceived or expected return and actual result from postgraduate education. This is supported by Shagnik et al (2021), who posited that there exists a difference between perceived returns to investment in education and the real returns to it. This implies there is lack or limited employment, less financial gains and wastages resulting from unemployment after completion of study. Agreeing, Demisie et al, (2021) found that despite the investments in education at individual level particularly, joblessness, long-time earning loss, financial hardship, among others deluded the rewards from it. More so, this is in tantrum with Jote (2017), Demissie, Herut, Yimer, Bareke, Agezew, Dedho, and Lebeta, (2021) who asserted that universities produce dozens of graduates every year, which implies that many graduates are left without a job for a long time; and perceived graduate unemployment as a failing returns on a country's and individual investment in higher education. The scholars further noted that being unemployed for an extended time after graduation has negative consequences in terms of higher education outcomes, implying that unemployment after higher education is a 'wasted' investment.

In addition, the findings shown that the actual return to postgraduate education which is defined as the exact benefit an individual eventually receives after acquiring or completing masters or doctoral education is different from the perceived return. Simply, actual returns to education are the real benefits or returns an individual has or receives after the completion of postgraduate education such career development, productivity, job requirement/advancement and recognition, while the perceived returns which is defined as those returns an individual will likely or hopes to receive after acquiring knowledge and skills via education. They include employment, financial reward, increased salary, among others.

Conclusion

From the foregoing, it can be concluded that disparity exists between

perceived and actual returns to postgraduate education. Also, the perceived return differs from actual return. While perceived return are the expectations of the individuals before embarking on postgraduate education which include employment, financial stability among others, the actual return are those benefits an individual eventually earns after completion of the programme which include career development, productivity among other.

Recommendations

1. Financial incentives should be given to enable or support any prospective individual/students wishing to undertake postgraduate education.
2. The institutions should provide some experimental materials or facilities for some courses in order to reduce the indirect private cost incurred by the individual.

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