

The Influence of Self-starting Behavior and Psychological Capital on Self-employment among University Graduates

Maklu Nanteer Yonla
Plateau State University

Waswa Balunywa
Makerere University Business School

Vincent Bagire
Makerere University Business School

Ernest Abaho
Makerere University Business School

This study investigates the influence of self-starting behaviour and psychological capital on self-employment among university graduates. Questionnaire survey of 311 of self-employed graduates was utilized. A multi-hierarchical regression analyses were performed. Results show that self-starting behaviour and psychological capital has a significant effect on self-employment among University graduates. The education curriculum needs to be revisited to incorporate action learning in order to prepare graduates for self-employment. Government should take keen interest in developing programs that build mind-sets. This study contributes to the dearth of evidence of self-employment among graduates literature by investigating the influence of self-starting behaviour and psychological capital.

INTRODUCTION

It is widely recognised that self-employment is one of the best alternatives for the rising rate of unemployment across the globe (ILO, 2017; Langevang & Gough, 2012; Klyver et al., 2013; Mahammed & Rashid, 2014; Tunio, Soomro & Bogenhold, 2017). This is reflected in its benefits in the areas monetary rewards, financial security, independence and need for achievement (Tunio, Sartaj, & Abro, 2017). The decision to become self-employed is individual's conscious choice that results from complex internal decision processes. Furthermore, self-employment contributes to the country's GDP, which was placed at 81.2% as at 2017. Despite these advantages, unemployment across the globe is still on the rise, more so among graduates (Adawo, Essien & Ekpo, 2012). With the skyrocketing increase in population and competition, most nations are unable to absorb graduates into the existing labour market (Mahama & Bashiru, 2014; Langevang & Gough, 2012). The case in Nigeria is not different. Although the expectation

is for graduates in this country to start up their own businesses and make a living, however very few have taken up the challenge of starting business to survive.

Extant literature reports self-starting behaviour and psychological capital as one of the factors associated with business start-ups (Glaub, Frese, Fisher & Hoppe 2014). The proponents of psychological capital (self-efficacy, hope, optimism, resilience) posit that decision to take an action rotates around an individual's self-concept. Thus, suggesting that positively-oriented human resource strengths and psychological capacities are strongly related with performance of actions (Seligman & Csikszentmihalyi, 2000; Sheldon & King, 2001; Snyder & Lopez, 2002; Peterson & Seligman, 2004; Luthans, 2007). On the other hand, Fay and Frese (2001) emphasize the issue of personal initiative in work performance. In a situation where governments are unable to ensure adequate level of employment, one needs to get out there and identify ways of earning a livelihood on their own if they are to make ends meet and survive (Magnus & Sanadaji, 2010). In its real sense, individual personality trait in terms of self-starting becomes key. In starting business, studies report that high level self-starting individuals often get work done easily by themselves (Frese, Hass, & Friedrich, 2016).

Given the significant differences in personality traits from individual to individual, it seems natural to suggest that the relationship between psychological capital and self-employment may also vary from one individual to another in terms of self-starting behavior. Literature on this relationship is scarce. This paper examines the relationship between self-starting behaviour, psychological capital and self-employment among graduates. Using the psychological capital and self-starting theories, we project characteristics of individuals that are associated with the degree to which they exhibit self-employment. We suggest that graduates' decision to become self-employed is shaped by their psychological capital (Luthan, et al., 2007) as well as self-starting behaviour (Frese, et al 2016). We then test these propositions empirically using data collected from 311 graduates in north-central Nigeria who resorted to self-employment as an alternative employment.

From the forgone arguments, it is seen that these scholars studied self-starting behaviour and psychological capital individually. Nevertheless, this paper examined both factors to see which one has more influence on self-employment among graduates. First, we provide evidence showing that psychological capital has a significant bearing on graduates' decisions to become self-employed. Specifically, we argue that individuals with psychological capital are likely to become self-employed than those without it. Second, we demonstrate that self-starting behavior can equally and easily influence self-employment among graduates. Explicitly, the design of this study allows for the consideration of the psychological capital and self-starting behaviour on self-employment. Thus, allowing for a more accurate and detailed description of how the relationship influence university graduates on self-employment.

The rest of the paper is organised as follows: the next section presents literature review and hypotheses development. This is followed by the research methodology. The results and discussion are presented next. The final section covers the conclusion and implication.

The State of Unemployment in Nigeria

According to the Nigerian National Bureau Statics (NBS) report (2017), unemployment rate in Nigeria increased from 14.2 per cent in the fourth quarter 2016 to 16.2 per cent in second quarter 2017 and 18.8 per cent in the third quarter, 2017. Further, unemployment increased from 13.6million in the second quarter 2017, to 15.9 million in the third quarter 2017. Considering the perspective of graduates into employment, the statistics show that 45.72% of graduates in Nigeria are unemployed (NBS, 2017). Additionally, over 1.8 million graduates are produced yearly by tertiary institutions into the labour market without job (World Bank 2017; NBS, 2017). With this development and particularly as it relates to the marginalization from the labour market, these graduates are seen to be jobless having no income value in the society (Adawo, Essien & Ekpo, 2012). Also, they suffer social exclusion and lack social recognition which often make friends and relations to regard them as liabilities in the society. These destroy morals and break social relationship which paves way for disaggregation of social bond, high crime rates and instability in the level of social order in a country.

In fact, Yusuf, Muhammed and Kazeem, (2014) documented that, of all the problems facing Nigeria in recent time, none is as dangerous, persistent and unbearable as the problems of high unemployment among Nigerian graduates. Notwithstanding the huge waste of human capital and loss of investment in higher education, those caught in the web of this social threat are often vulnerable to frustration and non-conforming behaviours. Similarly, Olukayode, (2017) contended that with flood of unemployed graduates, Nigeria as a country will continue to be an unsettled nation, if it cannot effectively solve this economic and social problem. This then calls for the Nigerian government to benchmark workable models from countries like South Korea, Thailand, Israel, and Brazil amongst others to curb the incidence of unemployment in the country.

LITERATURE AND HYPOTHESES DEVELOPMENT

Theoretical Considerations

Psychological Capital Theory

Psychological capital presumes that individual who has positive mindset in terms of self-belief, hope for goal attainment, high expectation and the ability to overcome difficult circumstances can help him/her to achieve a desired goal in life. This shows that a graduate with such resources easily venture and survive into self-employment for a living. Giving this assumption, it is evident in Nigeria that graduates with psychological capital are gainfully employed to survive. More so, psychological capital is largely drawn from the theory and research in positive psychology applied to the workplace (Peterson & Seligman, 2004; Seligman and Csikszentmihalyi, 2000; Sheldon & King, 2001; Snyder & Lopez, 2002). It has been defined as ‘the study and application of positively-oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today’s workplace’ (Luthans, 2002b). Luthans, et al., (2007) further operationalize psychological capital as an individual’s positive psychological state of development that is characterized by: first, having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; second, making a positive attribution (optimism) about succeeding now and in the future; third, persevering toward goals, and when necessary, redirecting paths to goals (hope) in order to succeed; and lastly, when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success. Empirical studies since then have provided evidence in support of positive relationship between psychological capital and organisation performance (Peterson et al., 2011; Sweetman et al., 2011; Dina, Paul & Harms, 2015). Looking at the study of psychological capital in other context it can be applicable as a predictor in studying self-employment among graduates. Nevertheless, the theory is limited by the fact that not all human behaviour are the same, individuals think and response to issues differently.

Self-starting Behaviour

Self-starting behavior is drawn from the theory of personal initiative theory (Frese, et al 1996). Initiative corresponds with one of the key meanings of entrepreneurship, namely ‘to take in hand’. The term entrepreneurship is derived from a French word ‘entreprendre’, meaning ‘to do something’ and it is also related to the word ‘emprendre’ which means ‘to commence’ or ‘to begin’. These meanings indicate the initiative-taking nature of entrepreneurship (Suddle, Beugelsdikj & Wennekers, 2006). Personal initiative is a behaviour manifested by an individual through self-starting, active and persistent approach to work or activities. In Nigeria graduates with self-starting behaviour are seen to be using their initiative by involving beyond what is formally required of a given job or task. This is where a person pursues self-set extra goals, with a long term focus, persistently, in spite of barriers and resistances he or she may face. While refers to an individual doing things without being told, without getting an explicit instruction, or without an explicit role requirement (Frese & Fay, 2001). Individual vary in their levels of initiative-taking, and this has an impact of their performance outcomes.

Hypotheses Development

Psychological Capital and Self-employment

The influence of psychological capital has been investigated in various disciplines and perspectives and found to be a significant predictor of attitude/behaviour/action. For instance, Luthans, Avolio, Walumbwa and Li (2005) studied psychological capital of Chinese workers, exploring the relationship with performance within the context of two private owned and one state owned factories (n=422). The results indicated that each of the positive organizational behavior states of hope, optimism, resiliency, and, (when combined) psychological capital, are positively associated with the performance outcomes of the sampled Chinese factory workers; implying that changes in psychological capital are associated with changes in work performance.

A similar study was conducted by Luthans, *et. al.* (2007a) using both university students and service firm employees. Luthans, *et. al.* (2007b) conducted two studies to analyze how hope, resilience, optimism, and efficacy individually and as a composite higher-order factor predicted work performance and satisfaction. The first sample in Study 1 consisted of 174 management university students while Study 2 consisted of 144 services firms. From the studies, it revealed that there was a positive relationship between psychological capital and performance and job satisfaction and that psychological capital was a better predictor of these outcomes than the individual components were supported. Additionally, Hmieleski and Carr (2007) in their study examined the relationship between psychological capital and well-being of 144 founders of new ventures. They established a positive relationship and concluded that development of psychological capital within entrepreneurs may help them to build resistance against the wide range of psychological stressors that they inherently face while leading their new ventures. Besides, psychological capital may be a key factor empowering entrepreneurs to be able to achieve their financial goals while sustaining high levels of psychological well-being and job satisfaction.

Sweetman, Luthans, Avey and Luthans (2010) investigated the relationship between positive psychological capital and creative performance. The sample for this study included 899 working adults from a wide cross section of organizations, levels, and jobs. The results revealed that psychological capital and each of its components related positively to creative performance. More still, Remeikienė, Startienė and Vasauskaitė (2011) investigated the influence of psychological-sociological factors on self-employment using the qualitative expert assessment method. Specifically, 30 self-employment experts participated in the study. Their results showed that psychological factors such as optimism, self-confidence, independence and openness have a positive influence on self-employment.

Costantini, De Paola, Ceschi, Sartori, Meneghini, and Di Fabio, (2017) examined the extent to which an improvement in psychological capital, as a personal resource, might enhance work engagement of employees in the public sector. A semi-experimental research design (pre-test and post-test) was used to conduct this study using 54 employees working in an Italian public health administration. Their findings showed that in both the pre-test and post-test stages, there was a significant correlation between psychological capital and work engagement. Furthermore, Mishra *et al.*, (2017) in their study, examined the relationship between bi-directional work–family enrichment, psychological capital, and supervisor support in promoting innovative work behaviour; using a sample of 398 service-sector employees. Among other findings, they established that positive changes in psychological capital are associated with positive changes in innovative work behaviour.

In health studies, Rabenu and Yaniv (2017) examined to what extent individuals differing in their positive psychological resources (optimism, hope, self-efficacy and resilience) implement different strategies to cope with stress in terms of change, acceptance, or withdrawal from a source of stress in an organizational setting. They used 554 employees from different organizations representing a wide range of jobs and positions. The structural equation modelling results showed that psychological resources (optimism, hope, self-efficacy and resilience) were positively related to coping by change and by acceptance and negatively related to withdrawal.

Other existing literature on psychological capital shows that more studies supports a positive relationship between psychological and performance/attitudinal outcomes (Avey, Wernsing, & Luthans, 2008; Luthans, Norman, Avolio, & Avey, 2008; Valli, Niitykangas & Haapanen, 2009; Gorgievski *et al.*,

2010; Avey, Luthans, Smith, & Palmer, 2010; Yousaf, Hizam-Hanafiah & Usman, 2015; Drnorsek, Patel & Cardon, 2016; Zivdar & Imanipour, 2017). However, the relationship between psychological capital and self-employment among graduates has not been given adequate attention. Nonetheless, from the previous studies, we hypothesise

H₁: There is a positive relationship between Psychological capital and self-employment among graduates.

Self-starting Behaviour and Self-employment

According to Frese and Fay (2001) and Frese (2009), self-starting implies that an individual is not just waiting to see what others do but start an action without being told or without an explicit role model. This may not be true for employees given the fact that they are embedded in an organizational hierarchy or developed structures, and standard operating procedures that need to be followed. In self-employment, an individual is on his own, and as such he needs to pursue self-set goals that keep himself ahead of his competitors, in terms of products, services, strategies to approach customers, getting information from customers, etc. Thus, the role of self-starting behaviour cannot be ignored.

Against this backdrop, Lisbona, Palaci, Salanova, and Frese (2018) in their study examined the effects of work engagement and self-efficacy on personal initiative and performance. The study extends the personal initiative model by including work engagement and self-efficacy as antecedents of personal initiative, and performance as a consequence. This involved two studies (study 1, with a cross-sectional design using n=396 participants from 22 organizations, and study 2, with a longitudinal design conducted in two waves with n= 118 participants from 15 organizations). Their study revealed that personal initiative influences performance. This means that individuals with high self-starting behaviour are more likely to improve their performance.

Rooks, Sserwanga and Frese (2014) studied the link between personal initiative and innovation using a sample of 283 rural and 290 entrepreneurs in Uganda. Their findings demonstrated that entrepreneurs who show personal initiative take the context of their decisions into consideration. They concluded that these entrepreneurs use situational cues provided by the context to decide which behavior is instrumental in implementing innovation. Their findings provide support that self-starting behavior which is a construct of personal initiative influences performance outcomes.

Frese, Has and Friedrich (2016) conducted an intervention study aimed at increasing personal initiative of owner/managers of firms and leading to positive performance effects for these firms. Considering self-starting behaviour, their focus was on self-starting in implementing new ideas. Their study revealed that successful business owners were associated with high level self-starters. Similarly, Glaub, Frese, Fischer and Hoppe (2014) employed a training intervention to investigate the relationship between personal initiative and entrepreneurial success among small business owner-managers. A theory-based controlled randomization field intervention for evidence-based management was utilised on 100 small business owners in Uganda. The intervention increased personal initiative behavior and entrepreneurial success over a 12-month period after the intervention. They concluded that an improvement in personal initiative behaviour was responsible for the improvement in entrepreneurial success.

Review of extant literature on personal initiative theory shows provide support for a positive relationship between self-starting behavior and performance outcomes (Solomon, Frese, Friedrich & Glaub, 2013; Hakanen , Perhoniemi, Oppinen-Tanner, 2008; De Dreu., & Nauta, 2009). However, the relationship between self-starting and self-employment among graduates has not been given adequate attention. Nonetheless, from the previous studies, we hypothesised.

H₂: There is a positive relationship between self-starting behaviour and self-employment among graduates.

METHODOLOGY

Design, Population and Sample

A cross-sectional survey design was employed in this study and confined to self-employed graduates across North-Central Nigeria. The choice of this region was because whereas as it is predominantly civil service region, the rate of unemployment among graduates remains a threat. A sample of 354 graduates was drawn from a list of business owners (Industrial Training fund 2016). The participants were selected using simple random sampling technique; and data were collected through a personal approach which yielded a response rate of 88.7%. The data collection approach was chosen because the limited availability and efficiency of postal and communication services in Nigeria, could not allow questionnaires to be mailed, faxed or couriered to respondents without causing selection bias. 43% of the respondents were between 26-35 years, 55% were male, 64% had bachelor's degree, 67% were sole proprietors, and 64% of the businesses were between 1-5years. Responses were enlisted from manufacturing (14.5% firms), general trade (53.4% firms), hair and beauty salons (18.5% firms), and tailoring/fashion design (18.5% firms).

Measures and Questionnaire

A Likert-scale questionnaire designed to measure the opinion or attitude of a respondent was utilized to obtain self-reported information. The questionnaire design is based on our review of relevant literature on self-employment, psychological capital and self-starting behavior. Table 1 presents the details.

**TABLE 1:
OPERATIONALIZATION AND MEASUREMENT OF VARIABLES**

Variable	Dimension	Issues to examine	Measures	Sample qnnr items
Self-employment		Engaging in a day to-day economic activity. (Gielnik et. al., (2015; Linan and Chen, (2009)	Respondents' mean score of the 23 items included in the questionnaire on a 6 point scale	<i>'How much effort do you put in mobilising the funds'</i> <i>'How much effort do you put in collecting the cash receipts business'</i>
Psychological capital	Self-efficacy	Graduates' ability, to demonstrate self-belief, confidence and capability to achieve a goal. (Luthan et al., 2004; Hmieleski & carr, 2002).	Respondents' mean score of the 10 items included in the questionnaire on a 6 point scale	<i>"I feel confident in analyzing a long-term problem to find a solution"</i> <i>"I feel confident that I always accomplish my work/goals",</i>
	Hope	Conceptualized as a person's willpower to achieve the desired goal Akman and Korkut, (1993)	Respondents' mean score of the 10 items included in the questionnaire on a 6 point scale	<i>At present, I am energetically pursuing my work/goals.</i> <i>I concentrate in achieving the goal set with a plan.</i>

Variable	Dimension	Issues to examine	Measures	Sample qnnr items
	Optimism	Perceived desire for positive outcome or it could be a persons' way of thinking of the best Luthan et al, (2004) Chang et al. (1996).	Respondents' mean score of the 10 items included in the questionnaire on a 6 point scale	<i>"Feel confident in analyzing a long-term problem to find a solution.</i> <i>I believe in my ability of doing any job I had never done before</i>
	Resilience	Examining person's ability to face and bounce back problem (Luthan et al., 2004; Smith, Dalen, Wiggins, Tooley & Benard, 2008)	Respondents' mean score of the 10 items included in the questionnaire on a 6 point scale	<i>"I usually manage differences in one way or another in my business",</i> <i>"I usually take stressful things at work in advance",</i>
Self-starting behavior		Behaviour of a graduate introducing improve ways to work goals/tasks without being told Li; Li & Liu (2011); Ohly & Fritz (2010).	Respondents' mean score of the 08 items included in the questionnaire on a 6-point scale	<i>"In the past 12 months, I have invested resources to improve my (business) tools",</i>

Control Variables

The study predicts self-employment among graduates, and as such, we included age of the respondent, gender and highest qualification in the regression analysis to control for confounding effects associated with them. Age of respondent was controlled using four discrete categories (18-25years, 26-35years, 36-45years, 46years and above). Gender of respondents was controlled using dichotomous scale (male, female). While education level was controlled for using four discrete categories (higher national diploma, bachelor's degree, masters, PhD).

Tests for Validity, Reliability and Confirmatory Factor Analysis

Table 2 reveals exploratory factor analysis used to explore the common variance-covariance characteristics of the study variables. This acknowledged core factors that represent the relationship amongst the study variables. Principal component analysis with eigenvalue, greater than one was used to extract factors. Factor loadings below 0.5 coefficients are suppressed to avoid extracting factors with weak loadings. Specifically, factor analysis was performed on psychological capital (self-efficacy, hope, optimism and resilience). The KMO and Bartlett's (1954) test of sampling adequacy were calculated to assess whether the questionnaire items used yield distinct and reliable factors (Kaiser, 1974). The results shows for psychological capital, KMO=.946 Bartlett test=7617.269, Total Variance Explained=60.11%, for self-starting behavior, the KMO=.905, Bartlett test=2230.054 and Total Variance Explained 61.07%. and self-employment, the KMO=.859, Bartlett test=1237.120 and Total Variance Explained 61.91%. Self-starting behavior and self-employment in this study were treated as a uni-dimensional variable; nonetheless, its items with standardized coefficients of .5 and above were retained.

Cronbach's α coefficients were computed to determine the internal consistency (reliability) of the scales of the study variables. The standardized Cronbach's α coefficients for all the scales, are all found to be above 0.7 recommended by Nunnally and Bernstein (1994) (psychological capital α =.852, self-stating behavior α =.872, and self-employment α =.913). The following steps were taken to detect whether common methods variance (CMV) is present as it leads to a false internal consistency. First, the items on the dependent variable were present before the independent variables. Second, dependent, independent

and control variables in this study are not similar in content. Third, the anchors for the dependent, independent and control variables are not similar. Third, anonymity of the respondents was assured.

The tests for regression assumptions were run to assess the suitability of the data to perform regression analysis. Specially, normality, linearity, homogeneity and multi-collinearity were assessed using statistical and graphical means. The results showed that all the parametric assumptions were met.

**TABLE 2:
DESCRIPTIVE STATISTICAL OUTCOME AND CONFIRMATORY TEST OF
RESULTS OF STUDY VARIABLES**

Factors	Percent of Variance	Code	Scale items	Factor Loadings	Mean	Std. Dev.
Self-Starting Behaviour		SSB1	Nothing is more exciting than to see my ideas into reality.	0.799	3.67	0.99
		SSB2	No matter the odds, if I believe in something I make it happen.	0.822	4.22	0.78
		SSB3	I excel at identifying business opportunities.	0.777	3.18	1.47
		SSB4	I am constantly on the lookout for new ways to improve my life.	0.758	4.15	1.56
		SSB5	If I believe in an idea, no obstacle will prevent me from making it happen.	0.860	4.02	0.34
		SSB6	Wherever I have been, I have been a powerful force for constructive change.	0.757	3.56	1.1
<i>Note: Based on the rotation sums of squared loadings, total variance explained = 61.07 percent, Kaiser-Meyer – Olkin measure of sampling adequacy = 0.905; Bartlett test of sphericity = 2230.054, significance = 0.000.</i>						
Psychological Capital		SEF1	I feel confident talking about my business anywhere I find myself.	0.707	4.63	0.98
		SEF2	I always fight for what I want in the face of challenges.	0.707	4.52	0.72
		SEF3	I feel confident in finding solutions for my most difficult problems.	0.766	4.64	0.89
		SEF4	I am confident of my ability to undergo pressure/challenging circumstances.	0.665	4.53	0.83
		HPE2	I always think about ways of getting out of a problem in my business.	0.734	4.68	0.69
		HPE3	I experience failures in life but remain focused.	0.750	4.57	1.15

Factors	Percent of Variance	Code	Scale items	Factor Loadings	Mean	Std. Dev.
		HPE4	At present, I am energetically pursuing my work/goals.	0.746	4.67	0.89
		OPM1	I always think about ways of getting out of a problem in my business.	0.750	4.49	0.98
		OPM2	I experience failures in life but remain focused.	0.746	4.51	0.72
		OPM3	At present, I am energetically pursuing my work/goals.	0.734	4.69	0.89
		RES1	I do not give up when things look hopeless.	0.754	4.67	0.83
		RES2	I put in the best effort no matter what happens.	0.757	4.76	0.69
		RES3	I like challenges that could improve my business.	0.707	4.28	1.15
		RES3	I like challenges that could improve my business.	0.707	4.28	0.75

Note: Based on the rotation sums of squared loadings, total variance explained = 60.11 percent, Kaiser-Meyer – Olkin measure of sampling adequacy = 0.946; Bartlett test of sphericity = 7617.26, significance = 0.000.

Self-Employment	SEP1	How much effort did you/do you put into analyzing daily business performance?	0.732	3.79	0.48
	SEP2	... opening up the business to the public?	0.772	3.37	0.58
	SEP3understanding customers?	0.782	3.95	0.47
	SEP4	... attending to customer complaints?	0.830	3.94	0.49
	SEP5	... ensuring smooth operations?	0.803	4.09	0.46
	SEP6	... advertising the business?	0.799	3.93	1.50
	SEP7	... developing a business plan?	0.799	3.93	0.51
	SEP7	... buying stock for the business?	0.618	3.93	1.51

Note: Based on the rotation sums of squared loadings, total variance explained = 61.914 percent, Kaiser-Meyer – Olkin measure of sampling adequacy = 0.859; Bartlett test of sphericity = 1237.12, significance = 0.000.

RESULTS

TABLE 3
PROVIDES THE INTER ITEM CORRELATIONS OF THE STUDY VARIABLES

Variables	1	2	3	4	5	6	7	8	9	10
Age -1	1									
Gender -2	.146**	1								
Educ -3	.138*	-.021	1							
Self-efficacy -4	.032	-.046	-.024	1						
Hope -5	.116*	-.085	.018	.767**	1					
Optimism -6	.035	-.008	.000	.638**	.675**	1				
Resilience -7	.097	-.032	.023	.660**	.665**	.741**	1			
Psychological cap -8	.079	-.049	.004	.881**	.890**	.869**	.865**	1		
Self-start behav -9	.055	-.007	-.002	.675**	.696**	.699**	.752**	.803**	1	
Self-employment -10	.066	-.007	-.088	.321**	.324**	.303**	.302**	.357**	.315**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (1-tailed)

The results in table 3 showed a positive and significant association among the study variables (Psychological capital and self-employment => $r=.357$, $p<.05$; Self-starting behaviour self-employment => $r=.315$, $p<.05$).

This suggests that, positive changes in self-starting behaviour and psychological capital are associated with positive change in self-employment among graduates. The results further show that hypotheses 1 and 2 which cover the relationship between self-starting behaviour, psychological capital and self-employment are also positive and significantly related. Additionally, the descriptive statistics generated in this study result from table 3 where all non-significant on a 6-point scale.

Regression Analysis

The analyses in this study were performed using SPSS v21. A correlation analysis was performed to test the associations between the study variables. While a hierarchical regression analysis was conducted to test for significance of each variables. Specifically, five regression models were run. First, the control variables were regressed against self-employment. Second, a separate regression model of self-starting behavior and self-employment was tested. Third, psychological capital and self-employment was tested. It should be noted that, psychological capital and self-starting behavior were centered before computing the product. The regression equations for the models were specified as follows:

Regression involving self-starting behaviour and psychological capital as global variables

Three models were specified as:

- Model 1: $SE = \beta_0 + \beta_1 A, G, E + \varepsilon$
- Model 2: $SE = \beta_0 + \beta_1 A, G, E + \beta_2 SSB + \varepsilon$
- Model 3: $SE = \beta_0 + \beta_1 A, G, E + \beta_2 PC + \varepsilon$

where:

SE=Self-employment

SSB=Self-Starting behaviour

Psycap= Psychological capital

b₀ - is a constant

b_1A – is the unstandardised B coefficient of business age
 b_2 Gender – is the unstandardized B coefficient
 b_3 Educational Qualification – is the unstandardized B coefficient
 ε is the error term

TABLE 4
HIERARCHICAL REGRESSION ANALYSIS

Variables	Model 1Control	Model 2 Direct Rel with SelfStBV	Model 3 Direct Rel with Psycap	VIF
Age	.083	.065	.053	1.043
Gender	-.022	-.017	-.002	1.024
Qualification	-.100	-.097	-.097	1.021
SelfStBV		.312**	.081	1.003
Psycap			.288**	2.842
R ²	0.015	0.111	0.141	
R ² (Adjusted)	0.005	0.100	0.126	
R ² change	0.015	0.111	0.141	
F-Value	1.510	9.583**	9.975**	
Durbin-watson				2.006

* $p < .05$; ** $p < .001$; reported results are standardised regression coefficients)

The results in model 1 show that the control variables do not make a significant contribution in explaining self-employment. This suggests that our models are not sensitive to confounding factors and the models are highly plausible. The addition of self-starting behaviour in model 2 reveals an extra contribution effect of 11.1% ($F=9.583$; $p < .05$) in the variance explained self-employment. In addition, self-starting behaviour is a significant predictor of self-employment ($\beta=.312$, $p=.000$). The addition of psychological capital in model 3 accounts for the extra 14.1% ($F=9.975$; $p < .05$) of the variance explained in self-employment. The models3 results also show that psychological capital is a significant predictor of self-employment ($\beta=.288$, $p=.000$)

Furthermore, the two-construct self-starting behaviour and psychological capital are significant predictors of self-employment. When predictive power and strength of all the two variables are compared, psychological capital has a greater effect on self-employment, followed by self-starting behaviour. The results also validate hypotheses 1 & 2 Overall, the model explains 25.2% of the variance in self-employment. The remaining 74.8% is catered for by factors not covered in this study.

DISCUSSION

Looking at the population of people world over has kept skyrocketing; the rate of graduates has equally kept on the rise. This has posed a threat on graduates joining ‘white collar’ jobs. Moreover, with the change in technology, most jobs are replaced by machines and the use of software. In such environment coupled with high cost of living, increasing poverty rates, and ever-increasing competition for the few available jobs, the hands of most governments are tied. As such self-employment seems to be the best alternative, if one is to make ends meet and survive. Unfortunately, the education system in most African countries prepares graduates for employment as opposed to self-employment. By implication, this means that if we are to see graduates get into self-employment, the issue of change of mind set becomes fundamental.

This study reports that psychological capital is a positive and significant predictor of self-employment. This is true because for an individual to get started and achieve high performance, the person must have confidence in his/her ability to mobilize motivation, cognitive resources and courses of action is necessary (Costantini, et al, 2017). An individual must be expectant of positive outcomes. This will motivate the person to pursue his/her goals and deal with difficult situations (Ziyae, Mobaraki, & saeediyoun, 2015). More still, the success of getting things up and running is a function of levels of hope. The higher the level of hope, the more the goal directed energy. Such individuals are more likely to exhibit the capacity to develop alternative pathways to accomplish their goals, and nothing can stop them. The way an individual reacts when faced with negative experiences also matters. Individuals with the tendency to bounce back after past negative experiences will not allow their past to hinder their performance (Drnorsek, Patel & Cardon, 2016). Such individual are risk takers, which is a virtue of an entrepreneur. These results corroborate the findings of previous psychological capital studies (Sweetman, Luthans, Avey &Luthans, 2010).

Nonetheless, it is interesting to note that the direct effect of psychological capital on self-employment is stronger on (column 3, table 4). Self-starting behaviour is critical for self-employment. A self-employed person is his own boss. This implies that to succeed in self-employment, an individual must have the ability to do things without being told. More still, for one to survive in the hostile market environment with many players in the industry, a person must be able to work out new/alternative ways of doing things or introduce new products or get new markets. Most of the previous studies have tended to focus on the traditional factors such as age, gender, educational qualification and financial resources as determinant of self-employment. Nevertheless, the direct relationship also effects, thus this study expands on the literature on the current study variables.

CONCLUSION AND IMPLICATIONS

The aim of this study was to investigate the relationship of self-starting behaviour, psychological capital on self-employment among graduates. The results suggest that improvement in self-employment among graduates is a function of an individual's ability to change his/her mindset on employment by developing his/her psychological resources coupled with the mentality of doing things without being told. This paper offers several implications. From the academic point of view, we explore the role of both psychological capital and self-starting behaviour in explaining self-employment. Our findings suggest that psychological capital is more critical. There is need for researchers to isolate the four dimensions of psychological capital and investigate their contributions. At policy level, there is need for a change in the education system to nurture students into self-employment early enough, with emphasis on action orientation as opposed to theory driven. This will go a long way in developing the graduates' psychological resources. At practical level, graduates must be willing to adapt to the changing environment and not remain static.

Nonetheless, the results must be interpreted with caution. First, although a survey questionnaire was employed in this study, follow up interviews which would have informed us of the reasons why the respondents held certain views were not undertaken. Future studies might benefit from a mixed methodology. Second, we did not test for differences across types of business. Some businesses are easy to start and run, and so it is important that other studies take into account sectoral differences to gain more insights on the relationship between self-starting behavior, psychological capital and self-employment. Third, this study was cross sectional and therefore did not capture changes in attitudes over time. This may necessitate follow-up studies in a longitudinal design to capture the trend of results. Lastly, drawing from the fact that our final model in the hierarchical regression, explains about 25.2% of the variation in self-employment, it is imperative that future studies should investigate other factors that account for the remaining 74.8% of the variance. In spite of its limitations, this study reliably makes important contributions as discussed above. Future research may wish to replicate in different country contexts.

REFERENCES

- Adawo, M. A., Essien, E. B., & Ekpo, N. U. (2012). Is Nigeria's Unemployment Problem Unsolvable? Current Research. *Journal of Social Sciences*, 4(6), 389-395.
- Akman, Y., & Korkut, F. (1993) Umüt ölçeği üzerine bir çalışma [A study on the hope scale.]. *H.Ü. Eitim Fakültesi Dergisi*, 9, 193-202.
- Avey, J. B., Wernsing, T. S., & Luthans, F. (2008). Can positive employees help positive organizational change? *Journal of Applied Behavioral Science*, 44, 48-70.
- Avey, J.B., Luthans, F., Smith, R.M., & Palmer, N.F. (2010). Impact of positive psychological capital on employee wellbeing over time. *Journal of Occupational Health Psychology*, 15(1), 17-28.
- Bartlett, M. S. (1954). A note on the multiplying factors for various χ^2 approximation. *Journal of the Royal Statistical Society, Series B16*, 296-298.
- Chang, E. C., D'Zurilla, T. J., & Maydeu-Olivares, A. (1996). Assessing the dimensionality of optimism and pessimism using a multimeasure approach. *Cognitive Therapy and Research*, 18, 143-160.
- Chen CW (2009). Modeling and control for nonlinear structural systems via a NN-based approach. *Expert Syst. Appl.*, 36, 4765- 4772.
- Costantini, A., De Paola, F., Ceschi, A., Sartori, R., Meneghini, A.M., & Di Fabio, A., (2017). Work engagement and psychological capital in the Italian public administration: A new resource-based intervention programme. *SA Journal of Industrial Psychology*, SA Tydskrif vir Bedryfsielkunde, 43(0), a1413. <https://doi.org/10.4102/sajip.v43i0.1413>
- Cronbach, L. J., & Warrington, W. G. (1951). Time-limit tests: Estimating their reliability and degree of speeding. *Psychometrika*, 16, 167-188.
- De Dreu, C.K.W., & Nauta, A. (2009). Self-Interest and Other-Orientation in Organizational Behavior: Implications for Job Performance, Prosocial Behavior, and Personal Initiative. *Journal of Applied Psychology*, 94(4), 913-926.
- Drnovsek M., Cardon M.S, & Patel, P.C., (2016). Direct and Indirect Effects of Passion on Growing Technology Ventures. *Strategic Entrepreneurship Journal*, 10(2), 194-213.
- Frese, M., Hass, L., & Friedrich, C. (2016). Personal initiative training for small business owners. *Journal of Business Venturing Insights*, 5, 27-36.
- Frese, M. (2009). Toward a psychology of entrepreneurship— An action theory perspective. *Foundations and Trends in Entrepreneurship*, 5, 435-494
- Fay, D., & Frese, M. (2001). The concept of personal initiative: An overview of validity studies. *Human Performance*, 14(1), 97-124.
- Frese, M., Fay, D., Hilburger, T., Leng, K., and Tag, A. (1997). The concept of personal initiative: Operationalization, reliability and validity in two German samples. *Journal of Organizational and Occupational Psychology*, 70, 139-161.
- Gielnik, M. M., et al. (2015). Action and action-regulation in entrepreneurship: Evaluating a student training for promoting entrepreneurship. *Academy of Management Learning & Education*, 14(1), 69-94
- Glaub, M. E., Frese, M., Fischer, S., and Hoppe, M. (2014). Increasing personal initiative in small business managers or owners leads to entrepreneurial success: A theory-based controlled randomized field intervention for evidence-based management. *Academy of Management Learning & Education*, 13, 354-379. doi: 10.5465/amle.2013.0234.
- Glaub, M., Fisher, S., & Hoppe, M. (2014). Increasing personal initiative in small business managers/owners leads to entrepreneurial success: A theory-based controlled randomized field intervention for evidence-based management, *Academy of Management Learning and Education*, 13, 354-379.
- Gorgievski, M.J., Bakker, A. and Schaufeli, W.B. (2010). Work engagement and workaholism: comparing the self-employed and salaried employees. *The Journal of Positive Psychology*, 5(1), 83-96.

- Hakanen, J.J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behavior*, 73, 78–91.
- Hmieleski K. M., & Carr, J.C. (2002). *The Relationship between Entrepreneur Psychological Capital and well-being*. Babson College Press, Oxford, United Kingdom, 231–243.
- Hmieleski, K.M., & Carr, J.C. (2007). The relationship between entrepreneur psychological capital and well-being. *Frontiers of Entrepreneurship Research*, 27(5), 1-12.
- ILO. (2017). *Global Employment Trends for Youth 2017: Scaling up investments in decent jobs for youth*. Geneva, International Labour Office.
- Kaiser, H.F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36.
- Klyver, K., Nielsen, S.L., & Evald, M.R. (2013). Women’s self-employment: an act of institutional (dis)integration? A multilevel, cross-country study. *Journal of Business Venturing*, 28(4), 474-488.
- Langevang, T., & Gough, K.V. (2012). Diverging Pathways: Young Female Employment and Entrepreneurship in Sub-Saharan Africa. *Geographical Journal*, 178, 242–52
- Li, Y., Liu, Y., & Liu, H. (2011). Co-opetition, distributor’s entrepreneurial orientation and manufacturer’s knowledge acquisition: Evidence from China. *Journal of Operations Management*, 29, 128–142.
- Liñán, F. and Chen, Y. W. (2009). Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship Theory and Practice*, 33(3), 593-617. DOI: 10.1111/j.1540-6520.2009.00318.x.
- Lisbona, A., Palaci, F., Salanova, M., & Frese, M. (2018) The effects of work engagement and self-efficacy on personal initiative and performance. *Psicothema*, 30(1), 89-96. doi:10.7334/psicothema2016.245
- Luthans, F., & Youssef, C.M. (2004). Human, Social, and now Positive Psychological Capital Management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143-160. *Manag*, 39(3), 633–59
- Luthans, F., Luthans, K.W., & Luthans, B.C. (2004). *Positive Psychological Capital: Beyond*.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541–572.
- Luthans, F., & Jensen, S. M. (2002). Hope: A new positive strength for human resource development. *Human Resource Development Review*, 1, 304-322.
- Luthans, F., Avolio, B. J., Walumbwa, F. O., & Li, W. (2005). The psychological capital of Chinese workers: exploring the relationship with performance. *Management and Organization Review*, 1, 249–271.
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate–employee performance relationship. *Journal of Organizational Behavior*, 29(2), 219-238.
- Magnus, H., & Sanadaji, T (2010). Entrepreneurship and the Theory of Taxation. *Small Business Economics*, forthcoming.
- Mishra, E. A., Nurvitadhi, J., Cook, J., & Marr, D. (2017). *WRPN: Wide Reduced-Precision Networks*. ArXiv e-prints.
- Mohammed, A. A., & Rashid, B. (2014), Customer Relationship Management (CRM) in Hotel Industry: A framework Proposal on the Relationship among CRM Dimensions, Marketing Capabilities and Hotel Performance. *International Review of Management and Marketing*, 2(4), 220-230. ISSN: 2146-4405.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- National Bureau of Statistics. (2017) Reports. www.nigerianstat.gov.ng.
- Ohly, S., & Fritz, C. (2010). Work characteristics, challenge appraisal, creativity, and proactive behavior: A multi-level study. *Journal of Organizational Behavior*, 31, 543-565.

- Olukayode.L. (2017, December) Graduate Unemployment in Nigeria: Causes, Consequences and Remediable Approaches *American International Journal of Contemporary Research*, 7(4), 63.
- Peterson, C., & Seligman, M. (2004). *Character strengths and virtues*. New York: Oxford University Press.
- Poor, S., Bahram, & Azimi, B. N (2014). Structural Modeling of the Relation of Self-Regulation with Emotional Intelligence on Academic Progress of Mathematics with Efficacy Mediate. *Journal of School Psychology*, 3(4).
- Rabenu, E., & Yaniv, E (2017) Psychological Resources and Strategies to Cope with Stress at Work. *International Journal of Psychological research*.
- Remeikienė, R., Startienė, G., & Vasauskaitė, J. (2011). The influence of psychological- sociological factors on self-employment. *Economics and management*, 16, 287-294.
- Rooks, G., Sserwanga, A., & Frese, M. (2014). Unpacking the Personal Initiative Performance Relationship: A Multi-Group Analysis of Innovation by Ugandan Rural and Urban Entrepreneurs. *Applied Psychology: International Review*, 65(1), 99–131. doi:10.1111/apps.12033
- Seligman, M. E. P., & Csikszentmihalyi, M. (Eds.). (2000). Positive psychology [Special issue]. *American Psychologist*, 55(1).
- Sheldon K., & King, L. (2001). Why positive psychology is necessary. *American Psychologist*, 56(3), 216–217.
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioural Medicine*, 15, 194-200.
- Snyder, C. R., & Lopez, S. (Eds.). (2002). *Handbook of positive psychology*. Oxford, United Kingdom: Oxford University Press.
- Solomon, G., Frese, M., Friedrich, C., & Glaub, M. (2013). Can personal initiative training improve small business success? A longitudinal South African evaluation study. *International Journal of Entrepreneurship and Innovation*, 14 (4), 255–268
- Sweetman, D., Avey, J. B., Luthans, F., & Luthans, B. C. (2010). Relationship between positive psychological capital and creative performance. *Canadian Journal of Administrative Sciences*. DOI: 10.1002/CJAS.175.
- Sweetman, D., Luthans, F., Avey, J.B., & Luthans, B. (2011). Relationship between positive psychological capital and creative performance. *Canadian Journal of Administrative Sciences*, 28, 4-13. Universidad de San Buenaventura Medellín, Colombia
- Tunio, M. N., Sartaj, S., & Abro, Q. M. M (2017). Strength-weakness-opportunity-threat [SWOT] analysis for the career development of new generation in Pakistan. *European journal of business and management*, 5(15).
- Valli.S., Niittykangas, H., & Haapanen. M. (2009). *Positive psychological capital and growth aspirations of Entrepreneurs Frontiers of Entrepreneurship Research*. Available at <http://digitalknowledge.babson.edu/>
- World Bank, World Development Report. (2016). *Jobs*. World Bank, Washington, 2013.
- Yousaf, H-H., & Usman. (2015). Graduate employability and preparedness: A case study of University of Malaysia Perlis (UNIMAP), Malaysia. *Geografia. Malaysian Journal of Society and Space*, 11(11), 129-143.
- Yusuf, O.M., Muhammed, D.U., & Kazeem, O.A (2014, February). Management of Leadership Style: An Approach to Organizational Performance and Effectiveness in Nigeria *International Journal of Humanities Social Sciences and Education (IJHSSE)*, 1(2), 17-29.
- Zivdar, M., & Imanipour, N. (2017). Antecedents of new venture creation decision in Iranian high-tech industries: Conceptualizing by a non-teleological approach. *The Qualitative Report*, 22(3),732-744. Retrieved from <http://nsuworks.nova.edu/tqr/vol22/iss3/4>.
- Ziyae, B., Mabaraki, M.H., & Saediyoum, M. (2015). The effect of Psychological Capital on innovative information technology. *Global Entrepreneurship Research*, 5(8), 1-12. doi:10.1186/540497.