

Moderating Role of Self-Starting Behaviour in the Psychological Capital - Self-Employment Relationship among Graduates in Nigeria

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Abstract

This study investigated the moderating effect of self-starting behaviour in the relationship between psychological capital and self-employment among graduates. A survey of 311 self-employed graduates was conducted. A multi-hierarchical regression analysis was performed to test the moderating effect. Results showed that self-starting behaviour has a significant moderating effect on the relationship between psychological capital and self-employment among graduates. Specifically, high levels of psychological capital influence self-employment at high level of self-starting behaviour, and vice versa. The novelty of this study is the use of psychological capital to explain self-employment and self-starting behaviour moderating between psychological capital and self-employment. This, is against the use of psychological capital by other scholars to explain employees' behaviours in organizations. More so, the education system/curriculum needs to be revisited in order to incorporate action learning so as to prepare graduates for self-employment. In addition, government should take keen interest in developing programs that will build and shape mind-sets. This study contributes in reducing the dearth of evidence of self-employment among graduates and by investigating the moderating effect of self-starting behaviour, it adds to literature in this area.

Keywords: Moderating effect, Psychological capital, Self-employment, Self-starting behaviour

Paper type: Research

Introduction

It is widely recognised that self-employment is one of the best alternatives for the ever-increasing unemployment rate across the globe (Langevang & Gough, 2012; Klyver, Nielsen & Evad., 2013; ILO, 2017). The benefits of self-employment include getting monetary rewards, financial security, independence and serving the need for achievement (Tunio, Sartaj & Abro, 2017). Furthermore, self-employment contributes to the country's GDP which stood at 81.20% 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 (Langevang & Gough, 2012). The expectation then is for graduates to start up their own businesses and make a living. Unfortunately, very few graduates have taken up the challenge.

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The extant literature reports 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. This implies that positively-oriented human resource strengths and psychological capacities are strongly related with employees' performance and development (Mikołajczyk, 2021). On the other hand, Orobia, Tusiime, Mwesigwa and Ssekiziyivu (2020) established that business sustainability is basically dependent on the initiative of stakeholder engagements, people and skills, ecosystem management, market and sales and innovation of entrepreneurs. In a situation where governments are unable to ensure adequate level of employment, graduates need to get out there and explore ways of earning a livelihood on their own if they are to make ends meet and survive (Yonla, Waswa, Bagire & Abaho, 2018). The idea of self-starting behaviour is key to graduates' survival. Similarly, existing studies report that high level self-starting behaviour often enable individuals to earn a living (Soylui, Siyez, & Ozeren, 2021)

However, it should be noted that the decision to become or not to become self-employed is a conscious individual choice that results from complex internal decision processes. Given the significant differences in personality traits from one individual to another 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 behaviour. Literature on this relationship is scarce. This paper examines factors associated with self-employment among graduates using the psychological capital and self-starting behaviour theories. Scholars pay less attention to the use of psychological capital in explaining self-employment especially in the context of this study. This is compared to the available literature on using psychological capital to explain behaviours of employees in organizations to predict performance and productivity. The paper proposes the characteristics of individuals that are associated with the degree to which they exhibit self-employment. Giving the findings, the study suggests that a graduate's decision to become self-employed is shaped by his/her psychological capital (Luthans et al., 2007; Yonla, Johnmark, Liman, Gani Sortu & Longdi, 2019) as well as self-starting behaviour (Yonla, et al 2018; Soyloi, Siyez & Ozeren, 2021). These propositions were tested empirically using data collected from 311 graduates in north-central Nigeria who resorted to self-employment as an alternative employment.

The paper makes the following contributions to the literature: First, it provides evidence showing that psychological capital has a significant bearing on graduates' decisions to become self-employed. Specifically, the paper argues that individuals with high level of psychological capital are likely to become self-employed than those with low levels. Secondly, it demonstrates that self-starting behaviour can also influence self-employment in the presence of psychological capital; more so, the interaction between psychological capital and self-starting behaviour causes a change in self-employment of graduates in this context. Explicitly, the design of this study allows for the consideration of more than simply the main effects of psychological capital on self-employment; by including the interaction effects of psychological capital and self-starting behaviour. Thus, the study demonstrates that it does not need more accurate and more detailed description of how and when self-starting behaviour affects self-employment of graduates.

The the next section presents literature review and hypotheses formulation and testing and this is followed by the research methodology. The results and discussion are also presented with the final section covering the conclusion and implications.

The state of unemployment in Nigeria

According to the unemployment rate in Nigeria increased from 14.2% in the fourth quarter of 2016 to 16.2% in the second quarter of 2017 and 18.8% in the third quarter of 2017. Furthermore, unemployment increased from 13.6 million in the second quarter of 2017, to 15.9 million in the third quarter of 2017. Considering the perspective of graduate employment, the statistics show that 45.72% of graduates in Nigeria are unemployed (NBS, 2017). Additionally, over 1.8 million graduates are produced for the labour market yearly by tertiary institutions and they remain without jobs (World Bank 2016; NBS, 2017). With the concurrent marginalization from the world of work, the unemployed graduates have been put in a state of worklessness and made to become dispossessed persons with no income value in the society. They are perpetually unhappy with themselves in the world of material consideration (Adawo, Essien & Ekpo, 2012). Also, they suffer social exclusion and lack social recognition which often makes friends and relations to regard them as liabilities in the society. These destroy morals and break social relationships thereby paving way for disaggregation of social bond, high crime rates and instability in the level of social order, in a country. Infact, 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 problem 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 a 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. There is need for the Government of Nigeria to benchmark workable models from South Korea, Thailand, Israel, and Brazil amongst others, to surmount the challenge of unemployment in the country. Thus, research into factors that affect self-employment among graduates is pertinent.

Literature and Hypotheses development

Theoretical considerations

Psychological capital theory

Psychological capital is largely drawn from the theory and research in positive psychology applied to the workplace (Snyder & Lopez, 2002; Peterson & Seligman, 2004). 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, Avolio, Avey, & Norman 2007). Luthans, et al., (2007) further operationalize psychological capital as an individual’s positive mind-set, that is characterized by: first, having self-efficacy to take on and put in the necessary effort to succeed at challenging tasks; second, being optimism is making a positive attribution about succeeding now and in the future; third, hope persevering toward goals, and when necessary, redirecting paths to goals in order to succeed; and lastly, resiliency when beset by problems and adversity; sustaining and bouncing back and even beyond, to attain success. Empirical studies since then have provided evidence in support of positive relationship between psychological capital and either individual or organisation performance (Sweetman Luthans & Luthans., 2011). However, recent studies by Calvo and García (2020) established strong relationship between psychological capital on graduates’ perception of

employability. The study further unveiled that for increase employability of graduates there should be focus on developing their psychological capital and entrepreneurial initiative to reduce unemployment in the country.

Self-starting behaviour

Self-starting behaviour is a theory drawn from the theory of personal initiative theory (Frese, Fay, Hilburger, Leng, & Tag, 1997). Resourcefulness corresponds with one of the key meanings of private enterprise such as, 'to take in hand'. The term entrepreneurship has its origin from a French word, 'entreprendre', meaning 'to do something' and it is also related to the word, 'emprendre' which means 'to commence' or 'to start/begin'. These meanings suggest the self-starting/initiative-taking step of entrepreneurship activity (Frese, Has & Friedrich, 2016; Yonla et al., 2018). Personal initiative is a behaviour manifested by an individual through self-starting behaviour, active and persistent approach to work or activities. Initiative involves going beyond what is formally required of a given job or task, 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 (Frese, et al, 1997). While self-starting refers to person doing certain things without receiving instruction from anyone, without getting an explicit training, or without an explicit guide to do such a job/activity (Frese & Fay, 2001). Individuals vary in their levels of initiative-taking, and this has an impact on 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, Calvo and García (2020) in their study, examined the influence of psychological capital on the acquisition of employability skills among final-year university students of Business Administration and Management undergraduate program. The study also investigated to find out whether employability skills played a mediating role in the relationship between psychological capital and employability as perceived by undergraduates. The study employed a time-lagged design and a sample of 326 students in their final year. The finding indicates that the increase in students' psychological capital had a positive and direct effect on the increase in the level of competence shown in employability skills of undergraduate students in this context.

Similarly, Li, Zhang, Cao, Yang and Yang (2021) reported the study that was conducted on cultivating higher vocational students' employability as one of the most important goals for higher vocational education. A number of findings pointed out teachers' key roles in the cultivation of employability. However, the cultivation of employability is also related to students' family environment and psychological capital has a vital role to play too. Through the collection of demographic data collected from a sample size of 6700 higher vocational students, the items were that of the Positive Psychological Capital Questionnaire (PPQ) and the College Students' Employability Questionnaire (CSEQ). The results indicate that, use of psychological capital is significantly correlated with employability ($P < 0.01$); although family environment can not regulate the impact of psychological capital on employability of the vocational students, it works independently as psychological capital does; the self-efficacy, optimism and hope in psychological capital significantly affect the employability of higher vocational students from single-parent families.

Sweetman, Luthans, Avey and Luthans (2010) investigated the relationship between positive psychological capital and creative performance. The sample for the 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. 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.

Mishra, Nurvitadhi, Cook and Marr., (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 the extent to which 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 support a positive relationship between psychological and performance/attitudinal outcomes (Gorgievski, Bakker & Schaufeli., 2010; Avey, Luthans, Smith, & Palmer, 2010; Yousaf, Hizam-Hanafiah & Usman, 2015; Drnorsek, Cardon & Patel, 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 hypothesize:

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 starts 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 need to be followed. In self-employment, an individual is on his/her own and as such, he/she needs to pursue

self-set goals that keep himself/herself ahead of his/her 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. Lisbona, Palaci1, 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). Among other results, their study revealed that personal initiative influences performance. This means that individuals with high self-starting behaviour are more likely to improve their performance.

Similarly, Glaub, Frese, Fischer and Hoppe (2014) employed a training intervention to investigate the relationship between self-starting behaviour 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 self-starting behaviour and entrepreneurial success over a 12-month period after the intervention. They concluded that an improvement in self-starting behaviour was responsible for the improvement in entrepreneurial success. Review of extant literature on self-starting behaviour theory provides support for a positive relationship between self-starting behaviour and performance outcomes (De Dreu & Nauta, 2009). However, the relationship between self-starting behaviour and self-employment among graduates has not been given adequate attention. Nonetheless, from the previous studies, we hypothesize:

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

Self-starting behaviour as a moderator of psychological capital self-employment relationship

Study on the moderating effect of self-starting behaviour in the relationship between psychological capital and self-employment has been given less attention. Therefore, the introduction of these variables will add to the body of knowledge. From the foregoing discussion, it is clear that psychological capital and self-starting behaviour individually influence the tendency to start and own a business. It is also known that individuals differ in their perceptions, attitudes and motivations; these differences are likely to have an impact on self-employment. To this effect, we propose that psychological capital interacts with a self-starting behaviour to affect self-employment. For instance, if an individual is oriented toward high levels of self-belief, hope, optimism and resilience at work, then the benefits from this orientation will be greater when self-starting behaviour factor such as innovativeness is present and which in turn works together to cause a change in self-employment and vice versa. These observations suggest the following hypothesize:

H₃: Self-starting behaviour moderates the relationship between psychological capital 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 a predominantly civil service region, and the rate of unemployment among graduates is increasing as a result of poor attitude among them to start their own businesses. Hence, this remains a threat as they are not positively engaged and able to meet their basic needs. 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 self-administered approached 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, would 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 the authors’ review of relevant literature on self-employment, psychological capital and self-starting behaviour. 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 & Chen, 2009)	Respondents’ mean score of the 23 items included in the questionnaire on a 6-point scale	‘How much effort do you put in mobilising the funds’ ‘How much effort do you put in collecting the cash receipts business’
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 feel confident in analyzing a long-term problem to find a solution” “I feel confident that I always accomplish my work/goals”,
	Hope	Conceptualized as a person’s willpower to achieve the desired goal	Respondents’ mean score of the 10 items included in the questionnaire on a 6-point scale	At present, I am energetically pursuing my work/goals. I concentrate in achieving the goal set with a plan.

		(Akman & Korkut, 1993)		
	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 believe in my ability to do any job I have 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 usually take stressful things at work in advance",</i>
Self-starting behavior		Behaviour of a graduate introducing improved ways to work for 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, 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 using four discrete categories (higher national diploma, bachelor's degree, masters, PhD).

Tests for validity and reliability

Convergent Validity to establish this, the study performed exploratory factor analysis for each study variable by running principle component analysis using varimax rotation method. Hence, before embarking on the analysis, the study tested for Keiser – Meyer – Olkin (KMO) and Bartlett tests (1954) to ensure sampling adequacy. Based on the assessment, the variables yielded distinct and reliable factors (Kaiser, 1974). The results indicated for psychological capital had KMO=.946, Bartlett test=7617.269 while Total Variance Explained=60.11%. Similarly, self-starting behaviour

(SSB) had KMO=.905, Bartlett test=2230.054 and Total Variance Explained 61.07%. The Factor loading was within the threshold of 0.5 and above. Any coefficient below 0.5 was suppressed to avoid extracting factors with weak loadings. To be specific, in this study, factor analysis was performed on psychological capital (self-efficacy, hope, optimism and resilience). Self-starting behaviour 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.

Reliability (internal consistency) the study employed Cronbach's alpha coefficient above 0.7 test as recommended by Nunnally and Bernstein (1994). The result is seen below: (psychological capital $\alpha=.852$, self-stating behavior $\alpha=.872$, and self-employment $\alpha=.91$). The study results confirm the reliability of the instrument.

Common Methods Variance (CMV): the following steps were taken to detect whether (CMB) was present in the study variables, as it leads to a false internal consistency. Given the above, the following steps were observed: First, the items on the dependent variable were present before the independent variables. Second, dependent, independent and control variables in this study were not similar in content. Third, the anchors for the dependent, independent and control variables were not similar. Fourth, anonymity of the respondents was assured.

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

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 moderated regression analysis was conducted to test for moderation. Specifically, five regression models were run. First, the control variables were regressed against self-employment. Second, a separate regression model of self-starting behaviour and self-employment was tested. Third, self-starting behaviour was removed, and the control variables and psychological capital were regressed against self-employment. Fourth, self-starting behaviour was added to the equation. Five, the interaction term (product of psychological capital and self-starting behaviour) were added to the equation. It should be noted that, psychological capital and self-starting behaviour were centered before computing the product. The regression equations for the models were specified as follows:

$$\text{Model 1: } SE = \beta_0 + \beta_1 A, G, E + \varepsilon$$

$$\text{Model 2: } SE = \beta_0 + \beta_1 SSB + \varepsilon$$

$$\text{Model 3: } SE = \beta_0 + \beta_1 A, G, E + \beta_2 PC + \varepsilon$$

$$\text{Model 4: } SE = \beta_0 + \beta_1 A, G, E + \beta_2 PC + \beta_3 SSB + \varepsilon$$

$$\text{Model 5: } SE = \beta_0 + \beta_1 A, G, E + \beta_2 PC + \beta_3 SSB + \beta_4 PCSSB + \varepsilon$$

All interactions were graphed using the online Modgraph excel spreadsheet developed by Jose (2008). The tool takes care of the procedures developed by Cohen and Cohen (1987) and Aiken and West (1991).

Results

Table 3 provides the inter item correlations of the study variables.

Table 3: Correlation results

Variables	1	2	3	4	5	6	7	8	9	10
Age -1	1									
Gender -2	.146**	1								
Educ -3	.138*	-	1							
Self-efficacy -4	.032	.021	-	1						
Hope -5	.116*	.046	.024	.767**	1					
Optimism -6	.035	.085	.000	.638**	.675**	1				
Resilience -7	.097	.008	.023	.660**	.665**	.741**	1			
Psychological cap -8	.079	.032	.004	.881**	.890**	.869**	.865**	1		
Self-start behav -9	.055	.049	-	.675**	.696**	.699**	.752**	.803**	1	
Self-employment -10	.066	.007	.002	.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 indicate that none of the three control variables has significant relationship with self-employment where Edu is => $r = -.024$, $p < .05$). Similarly, the same table shows a positive and significant relationship between the study variables and all the dimensions (Psychological capital and self-employment => $r = .357$, $p < .05$; Self-starting behaviour and self-employment => $r = .315$, $p < .05$).

Table 4 provides the outcomes of the moderated regression analysis. The results in column 1 of table 4 show the control variables have a non-significant contribution in explaining self-employment (adjusted $R^2 = .005$; $F = 1.51$; $p > .05$). Column 2 shows that when self-starting behaviour was added in the equation, the relation was positive and significant. In addition, self-starting behaviour accounted for 9.8% of the variance explained in self-employment ($\beta = .312$, $p < .05$; $R^2\Delta = .097$; $F = 9.58$; $p < .05$).

Table 4: Hierarchical moderated regression

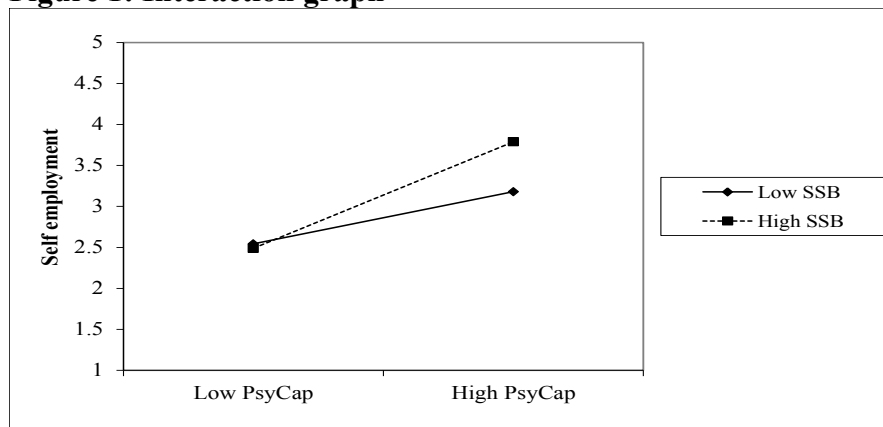
Variables	Control Variables	Direct effects with SelfStBV	Direct effects with PsyCap	Direct effects with all independent variables	Interaction effect
Age	.083	.065	.052	.053	.049
Gender	-.022	-.017	.000	-.002	-.008
Qualification	-.100	-.097	-.097	-.097	-.096

PsyCap			.353**	.288**	.349**
SelfStBV		.312**		.081	.099
PsyCap x SSB					.132*
R ²	0.015	0.111	0.138	.141	.152
R ² (adjusted)	0.005	0.1	0.127	.126	.135
R ² change		0.097	0.124	.002	.011
F-Value	1.51	9.583	12.269	9.975	9.084

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

In column 3, self-starting behaviour was removed. The control variables and psychological capital were regressed with self-employment. The results show a positive and significant relationship between psychological capital and self-employment ($\beta=.353$, $p<.05$). In addition, psychological capital accounted for 12.4% of the variance explained in self-employment ($R^2\Delta=.124$; $F=12.269$; $p<.05$). Results in column 4 show that when the control variables, psychological capital and self-starting behaviour are regressed together, self-starting behaviour accounted for 0.02% of the variance explained in self-employment ($R^2\Delta=.002$; $F=9.975$; $p<.05$). Moreover, the relationship becomes insignificant ($\beta=.081$, $p>.05$). When the interaction term was added to the equation, it accounted for a mere 1.1% of the variance explained in self-employment. The interaction term is positively and significantly related with self-employment. Furthermore, the addition of the interaction term in the equation strengthened the relationship between psychological capital and self-employment ($\beta=.349$, $p<.05$). The results in the overall model is significant (adjusted $R^2=.135$; $F=9.084$; $p<.05$). The nature of interaction is depicted in figure 1.

Figure 1: Interaction graph



Legend : *Psycap*=psychological capital ; *SSB*=self-starting behaviour

The graph shows that high levels of psychological capital influence self-employment at high level of self-starting behaviour, and the reverse is true.

Discussion

While the population of people world over has kept skyrocketing, the rate of higher institutions of learning churning out graduates has equally remained on the rise. This has posed a threat to graduates seeking to secure ‘white collar’ jobs. Moreover, with the change in technology, most jobs are replaced by machines and 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 mindset 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 his/her motivation, cognitive resources and courses of action 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, and 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 and Luthans, 2010). Nonetheless, it is interesting to note that the direct effect of psychological capital on self-employment is stronger before the inclusion of the interaction term (Column 3, Table 4). The results in the final model that included the interaction term, suggest that some of the variance accounted for in the direct relationship were partially absorbed by the moderating effect of self-starting behaviour. On plotting the interaction effect, the graph showed that high levels of psychological capital influence self-employment at high level of self-starting behaviour, and the reverse is true. 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. These interact with psychological resources to cause a change in self-employment. Most of the previous studies tended to focus on the direct 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 moderating role of self-starting behaviour in the relationship between psychological capital and 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, it explored the role of both psychological capital and self-starting behaviour in explaining self-employment. The findings suggest that psychological capital is more critical. There is need for researchers to isolate the four dimensions of psychological capital and investigate their contribution. At the 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 orientation. This will go a long way in

developing the graduates' psychological resources. At the 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 the researchers of the reasons why the respondents held certain views were not undertaken. Future studies might benefit from a mixed methodology. Second, the researchers 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 psychological capital, self-starting behaviour 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 the final model in the hierarchical regression, explains about 14.67% of the variation in self-employment, it is imperative that future studies should investigate other factors that account for the remaining 85.33% of the variance. In spite of its limitations, this study reliably makes important contributions as discussed above. Future research may wish to replicate it in different context.

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.
- Aiken, J. S, & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. New York: Sage.
- Akman, Y, & Korkut, F. (1993). Umut ölçeği üzerine bir çalışma [A study on the hope scale.]. *H.Ü Eitim Fakültesi Dergisi*,9, 193-202.
- 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 x2 approximation. *Journal of the Royal Statistical Society*, Series B16:296-298.
- Calvo J.C.A, & García G.M (2020). The influence of psychological capital on graduates' perception of employability: the mediating role of employability skills, *Higher Education Research & Development*: <https://doi.org/10.1080/07294360.2020.1738350>
- Chang, E. C., D'Zurilla, T. J., & Maydeu-Olivares, A. (1996). Assessing the dimensionality of optimism and pessimism using a multi measure approach. *Cognitive Therapy and Research*, 18, 143-160.
- Cohen, J, & Cohen, P., (1987). *Applied Multiple Regression/Correlation Analyses for the Behavioural Sciences*, 3rd ed. Lawrence Erlbaum, Hillsdale, NJ.
- 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>
- De Dreu., C.K.W, & Nauta, A. (2009). Self-Interest and Other-Oriented 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.

- Fay, D., & Frese, M. (2001). The concept of personal initiative: An overview of validity studies. *Human Performance*, 14(1), 97-124. <https://doi.org/10.1207/S15327043HUP140106>.
- Frese, M., Fay, D., Hilburger, T., Leng, K., & 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.
- Frese, M., Hass, L., & Friedrich, C. (2016). Personal initiative training for small business owners. *Journal of Business Venturing Insights*, 5, 27–36.
- Gielnik, M. M., Frese, M., Kahara-Kawuki, A., Katono, I. W., Kyejjusa, S., Ngoma, M., Munene, J.C (2015). Action and action-regulation in entrepreneurship: Evaluating a student training for promoting entrepreneurship, *Academy of Management Learning & Education*, 14(1), 69–94. <http://dx.doi.org/10.5465/amle.2012.0107>.
- Glaub, M. E., Frese, M., Fischer, S., & 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.
- Gorgievski, M.J., Bakker, A., & 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 Colleg Press, Oxford, United Kingdom. 231–243.
- ILO, (2017). Global Employment Trends for Youth 2017: Scaling up investments in decent jobs for youth. Geneva, International Labour Office.
- Industrial Training Fund (2016). Manpower training and Development Programme. Jos Training Fund Press.
- Jose, E. P. (2008). Welcome to the Moderation/Mediation Help Centre, Version 2.0. Wellington: *School of Psychology*, Victoria University of Wellington.
- 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), pp. 474-488.
- Langevang, T., & Gough, K.V. (2012). ‘Diverging Pathways: Young Female Employment and Entrepreneurship in Sub-Saharan Africa’, *Geographical Journal* 178: 242–52
- Laura A. Orobia .A. L., Tusiime, I., Mwesigwa .R., & Ssekiziyivu .B. (2020). Entrepreneurial framework conditions and business sustainability among the youth and women entrepreneurs. *Asia Pacific Journal of Innovation and Entrepreneurship* 14 pp. 60-75 Emerald Publishing Limited. <https://www.emerald.com/insight/2398-7812.htm>.
- 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.
- Li, X., Zhang, Q., Cao, Y., Jinping Yang, J., & Yang, M. (2021). An Exploration into the Influence of Higher Vocational Students’ Psychological Capital on Their Employability. *Honghe*

- Health Vocational College, Mengzi City, Honghe Prefecture, Yunnan Province, China.*
<https://doi.org/10.1051/shsconf/20219602007>.
- Liñán, F., & 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., & Michael Frese, M. (2018). The effects of work engagement and self-efficacy on personal initiative and performance. *Psicothema* 30(1) pp 89-96 doi: 10.7334/psicothema .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.
- Mikołajczyk. K, (2021). Changes in the approach to employee development in organisations as a result of the COVID-19 pandemic. *European Journal of Training and Development* Emerald Publishing Limited 2046-9012 DOI 10.1108/EJTD-12-2020-0171
- Mishra, E. A., Nurvitadhi, J. J., Cook, & Marr. D. (2017). WRPN: Wide Reduced-Precision Networks. ArXiv e-prints,
- National Bureau of Statistics (2016). Reports. www.nigerianstat.gov.ng.
- Nunnally, J. C, & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- 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). Graduate Unemployment in Nigeria: Causes, Consequences and Remediable Approaches *American International Journal of Contemporary Research* 7(4), Pg63
- Peterson, C., Park, N., and Castro, C. A. (2011). Assessment for the US Army Comprehensive Soldier Fitness program: The Global Assessment Tool. *American Psychologist*, 66, 10–18.
- Rabenu, E, & Yaniv, E. (2017). Psychological Resources and Strategies to Cope with Stress at Work. *International Journal of Psychological research*.
- Remeikienė, R., Startienė, G., and Vasauskaitė, J. (2011). The influence of psychological-sociological factors on self-employment. *Economics and management* 16: 287-294.
- 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.
- 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
- Soylui, Y., Siyez, D.M, & Ozeren, E., (2021). Gender Perception, Career Optimism and Career Adaptability Among University Students: The Mediating Role of Personal Growth Initiative. *International Journal of Progressive Education*, 17(1).
- 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).
- World Bank, World Development Report (2016). Jobs. World Bank, Washington, 2016.
- Yonla, M .N., Waswa, B., Bagire, V, & Abaho, E., (2018) The Influence of Self-starting Behavior and Psychological Capital on Self-employment among University Graduates. *Journal of Organizational Psychology*. 18(4), p117-131. 15p.
- Yonla, M, N., Johnmark, R.D., Liman, A J., Gani, B.J, Sortu, S, & Longdi, J.D. (2019). The role of innovative behaviour in the relationship between psychological capital and self-employment among graduates in Nigeria. *European Journal of Business and Innovation Research* 7(2), pp.57-81, March 2019 Published by European Centre for Research Training and Development UK (www.eajournals.org)
- Yousaf, 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). Management of Leadership Style: An Approach to Organizational Performance and Effectiveness in Nigeria *International Journal of Humanities Social Sciences and Education (IJHSSE)* 1(2), PP 17-29
- Ziyae, B., Mabaraki, M.H, & Saediyoun, M. (2015). The effect of Psychological Capital on innovative information technology. *Global Entrepreneurship Research*, 5(8), 1-12. doi:10.1186/540497.
- Snyder, C. R., and Lopez, S. (Eds.). (2002). *Handbook of positive psychology*. Oxford, United Kingdom: Oxford University Press.
- Peterson, C., a Seligman, M. (2004). *Character strengths and virtues*. New York: Oxford University Press.
- Zivdar, M., and 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>.
- Frese, M. (2009). Towards a psychology of entrepreneurship: An action theory perspective. *Foundations and Trends in Entrepreneurship*, 5, 437-496.
- Kaiser, D., Songo Williams, R. and Drack, E. (1974). Hydrogen ion and electrolyte excretion of the single human sweat gland. *Ugers Archive* 349, 6372.