Entrepreneurial potential self-assessment in times of COVID-19: Assessing readiness, engagement, motivations and limitations among young adults in Nigeria

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Abstract

Background: The literature on youth entrepreneurship indicates that young people, especially those from developing countries, typically face numerous challenges in their bid to start a business. Such obstacles are most often exacerbated in times of emergencies like COVID-19 thus, posing a serious threat to youthful innovation. Equally, how young potential entrepreneurs evaluate their role in times of COVID-19 is largely unknown.

Objective: The primary objective of the study was to examine how young Nigerian potential entrepreneurs assess their readiness, engagement, motivations and limitations with regards to building a business during COVID-19.

Methodology: We used a web-based survey design to elicit data from a total of 1,067 young adults aged 18-35 years.

Results: Findings revealed that although young adults in our sample showed impressive entrepreneurial readiness and motivations, they did not actually engage in entrepreneurial activities during the COVID-19 pandemic. Gender and prior entrepreneurial experience have significant positive effect on young adults' perceived entrepreneurial readiness during COVID-19. Perception of the effects of the COVID-19 pandemic on businesses was found to have mediated the influence of young adults' demographic variables on entrepreneurial engagement. While certain socio-cultural as well as institutional variables were found to have prevented young adults' from engaging in productive businesses, their educational level and age category provided interesting insights into basic entrepreneurial outcomes in times of COVID-19.

Unique contribution: The study provides pathways for improving entrepreneurial recovery processes during and after the pandemic. The study specifically contributes to inclusive entrepreneurship policy programmes that can be adopted by developing economies.

Conclusion: Based on these findings, we have reasons to believe that young adults are losing confidence in the capacity of the business environment to protect their interests especially during public health emergencies like COVID-19.

Key recommendation: As several governments consider full reopening of their economies, it is important that COVID-19 entrepreneurial policies and procedure consider the roles of young potential entrepreneurs on the road to economic recovery.

Keywords: COVID-19, youth entrepreneurship, entrepreneurial readiness, entrepreneurial motivations, entrepreneurial limitations and entrepreneurial engagement

Introduction

Starting a business from ground up is no easy feat. Even under a relatively conducive and stable business environment, utilizing new economic opportunities could be very challenging. This situation is most often exacerbated in times of crisis and the spread of COVID-19 consequently jeopardize a remarkable potential for innovation (Kuckertz *et al.*, 2020). This, therefore, suggests that crisis such as the COVID-19 pandemic might be creating newer challenges for would-be entrepreneurs, particularly the young adults.

The literature on youth entrepreneurship indicates that young people who want to go into business are influenced by varying distinctive factors which consequently affect their perception of entrepreneurship. Papulová, and Papula (2015) assert that while certain factors are general and connected to the overall situation in the economy, business conditions and preconditions for success in business, things can take an absolutely different turn when younger adults are involved. This is particularly so because entrepreneurial potential for the younger generation is said to be lower than the older generations. In a survey of individuals who were categorized into different generation (i.e., Baby Boomers, X, Y and Z), Ensari (2017) found that the Z generation scored lower than Baby Boomers, X and Y generations put together, in terms of entrepreneurial potentials. Current realities are also showing that the attitude of many youths towards self-sustenance and the utilisation of available business opportunities are discouraging (Melugbo, 2019; Olugbola, 2017).

However, for many of the youths with business ideas, the capacity and the ability to turn these initiatives into feasible business activities is lacking (Shane *et al.*, 2012; Timmons, 1994). Several empirical evidence have added further that full realization of entrepreneurial potentials depends on youth readiness (Shane *et al.*, 2012), youth prior engagement in business activities (Bignotti & Le Roux, 2020; Yuan *et al.*, 2019) internal and external motivations (Ferreira *et al.*, 2017; Jayawarna *et al.*, 2013; Sandybayev, 2017) and limitations (Katrodia & Sinbada, 2018) to turning ideas into business. It is equally certain that in the face of the global COVID-19 pandemic, younger people with business ideas are faced with new realities. It is also believed that the pandemic is having a disproportionate impact on young entrepreneurs in developing countries. For instance, to Bordeleau *et al.*, (2020) who argue that COVID- 19 is not only a public health concern but also an economic crisis, the pandemic has resulted in an escalation of problems that young African entrepreneurs were already confronted with. Osakwe, an award winning entrepreneur, described how small entrepreneurs (a group which constitutes more than 80 per cent of the labour force) in Nigeria have been left alone to navigate these terrible times (CNBC Africa, 2020). Even though programmes and funding opportunities (e.g., Federal Government Presidential Youth Empowerment Scheme [P-YES 2019]; Bank of Industry [BOI], etc) aimed at creating empowerment opportunities through skill acquisitions abound, they have not had significant impact on youth participation in entrepreneurial activities (Melugbo, 2019). It is therefore safe to assume that the COVID-19 pandemic has not only amplified the challenges young people face in building their businesses but also affected their startups potential.

To lessen the adverse effect of the pandemic on this group of people, there is need to understand young people's self-assessment of their entrepreneurial potential in terms of their readiness,

current engagement, motivations and limitations. An empirical assessment of this kind is important in many ways. First, it can help us improve the entrepreneurial recovery process during and after the pandemic. Second, it can assist in the identification of unique factors or variables capable of informing policy design and response as well as intervention initiatives aimed at cushioning the effect of the pandemic on the economy. Third, it can help in the understanding of how region-specific factors (i.e., issues peculiar to Nigeria) impact on youth entrepreneurship in times of COVID -19. As a result, we examined how young Nigerian potential entrepreneurs assess their readiness, engagement, motivations and limitations with regards to building a business in times of COVID-19.

Literature Review

Entrepreneurial readiness

To kick off any form of business or entrepreneurial activities, those involved must show a reasonable amount of enthusiasm and preparedness. Put differently potential entrepreneurs must display a consistent pattern of thoughts, feelings and behaviour about the intended business. This is perhaps why Ruiz *et al.,* (2016) define readiness for entrepreneurship as the combination of a set of personality traits (or characteristics). Ruiz *et al.*, (2016) further posit that people display entrepreneurial readiness when they examine their environment and attempt to utilize their economic competence. To this end, various approaches have been adopted to ascertain the entrepreneurial readiness of young people. According to Olugbola (2017), the measures used in rating youth's entrepreneurship in different countries range from provision of loan and business facilities, capital to provision of avenue for youths to attend business programmes, fora, seminar and conferences. There are evidences to also suggest that demographic variables could impact on entrepreneurial readiness. Ruiz had argued that these variables are crucial when measuring people's readiness for entrepreneurship. Studies have particularly highlighted the role of the following variables in the understanding individual's readiness in starting a business: variables are gender (e.g., Bruni *et al.,* 2004; Cheraghi, & Thomas, 2015; Minniti & Nardone, 2007; Nguyen, 2018; Olugbola, 2017; Staniewski & Szopiński, 2015), age (Moa-Liberty *et al.,* 2016), educational level (Pittaway & Cope, 2007), type of courses read (e.g., Staniewski & Szopiński, 2015) income level (Van Stel *et al.,* 2007), habitat, origin and prior entrepreneurial experience (Nguyen, 2018). Although empirical evidences highlighting the significance and determinants of entrepreneurial readiness abound, it is unclear how such influences can affect readiness of young people for entrepreneurship in times of global pandemic like COVID-19. As a result, one of the focuses of this study is to investigate the influence of gender, age category, prior entrepreneurial experience and ethnic origin on young adults' entrepreneurial readiness in times of COVID 19. Consequently, we hypothesized that:

Hypothesis 1. Gender, age category, prior entrepreneurial experience and ethnic origin have significant positive effect on young adults' perceived entrepreneurial readiness in times of COVID 19.

Entrepreneurial engagement

Alternatively referred to as entrepreneurial involvement, entrepreneurial engagement captures a step-by- step process of creating economic activities. Ayanna (2015) describes the concept as the level of involvement in a business activity. Ayanna assert further that even though literature on entrepreneurial engagement is scanty, there is an appreciable level of consensus among authors

as to the stages and dimensions of business involvement, which differ slightly. Consequently, Grilo and Thurik (2008) as cited in Ayanna, (2015, p. 282) highlight seven dimensions of the concept. They include: (i) "thinking about it"; (ii) "taking steps for starting up"; iii) "having a young business"; iv) "having an older business"; v) "gave up"; vii) "no longer being an entrepreneur"; and vii) "never thought about it". If the dimensions were to be summarized differently, we could safely assume that entrepreneurial engagement involves the actual process of bringing a business plan to reality and the ability or capacity to either grow or shrink the business. As in the case of entrepreneurial readiness, entrepreneurial engagement is largely impacted by various demographic variables. Studies have highlighted significant demographic influences of variables such as gender, age, education and prior business experience on entrepreneurial engagement (e.g., Camelo-Ordaz *et al.*,., 2016; Moa-Liberty *et al.*,., 2016; Nguyen, 2018; Soomro *et al.*,., 2019). However, to develop a profound understanding of entrepreneurial engagement in the context of the present study, there is need to examine how potential entrepreneurs perceive the impact of COVID-19 on their entrepreneurial engagement process. In their study of 850 business owner perception of COVID-19 on their business, Desai and Looze (2020) found that business owners saw the effects of the pandemic on their business as negative. They also found that perception of these effects can change with time. Therefore, how the varying perception of the effects of the COVID-19 pandemic on businesses can mediate the influence of demographic factors on young people's entrepreneurial engagement is unknown. Consequently, we present the following hypothesis:

Hypothesis 2. Demographic factors will predict young people entrepreneurial engagement even when perception of the effects of the COVID-19 pandemic on businesses is controlled for.

Entrepreneurial motivations

Basically entrepreneurial motivations refer to those internal and external drives or desire that push or pulls an individual into engaging in a business activity. This suggests that entrepreneurial motivation can be categorised into: internal and external motivation. On the one hand, the internal motivations are concerned with individuals' desire to find a space in competitive business environment (Shane & Venkataraman, 2000) and the need for self-actualization and achievement, which is agreed to be the most significant motivation among scholars (e.g., Barba-Sánchez & AtienzaSahuquillo, 2012; McClelland, 1965; Sivarajah & Achchuthan, 2013). Studies have found that these characteristics are strongly correlated with entrepreneurial variables (Ferreira *et al.*, 2017). On the other hand, the external motivations are concerned with such variables as family influence (Almeida & Teixeira, 2014; Uddin *et al.*, 2015) academic influence (Kacperczyk, 2013), region, ethnicity, culture and gender (Reynolds, *et al.*, 2004). As an example, in the context of culture, region and ethnicity influencing business potentials or engagement, Akmaliah and Hisyamuddin (2009) found that community support was a significant motivation for entrepreneurial endeavours among students in Malaysia. From the motivations highlighted, it is obvious that personality and social influences are crucial to the understanding of what motivates individuals' involvement process in business. However, how these variables (especially the internal motivations) might influence business potentials, in terms of entrepreneurial engagement under a COVID-19 business condition is largely unknown. As a result, we present our third hypothesis that:

Hypothesis 3. Young adults' need for self-actualization and achievement will predict entrepreneurial engagement in times of COVID-19.

Limitations of entrepreneurial engagement

Barriers to successfully engaging in entrepreneurial endeavours could be anything depending on the context and the perception of who is involved. Nonetheless there are certain personal, social and institutional barriers that young adults face in their bid to start up a business. These barriers serve as restrictions emanating from policies, laws and fixed societal perception about young people starting a business. For example, in their examination of key constraints that impede young Chittagongians in Bangladesh from starting and running a business, Uddin *et al.,* (2015) found that the challenges faced by young potential entrepreneurs include traditional middle class mindset, neglect of knowledge based innovations, frustrating technicalities in bureaucracy associated with business startups, business policy measures excluding young people, ineffective strategic partnership between established and new partnership and improper branding and lack of access to international markets. Other personal constraints highlighted by Uddin *et al.,* (2015) ranged from lack of skill sets in demand, lack of security and credibility to lack of understanding about startups financing possibilities. Other studies conducted in different parts of the sub-Saharan African region (e.g., Beeka, 2015; Boateng *et al.,* 2014) had also reported similar outcomes. As an example, Boateng *et al.,* (2014) had found that youths in Ghana perceived lack of capital, lack of market opportunities, risks lack of skill and lack of support as the main obstacles to entrepreneurial intention. While these studies have been able to identify similar challenges confronting youth entrepreneurship, there is an uncertainty with regards to the extent of these entrepreneurial obstacles in a challenging time like the COVID-19 pandemic. Consequently, this study examines the extent of such business limitations among young adults in times of COVID-19.

Theoretical Framework

The theory of planned behavior (TPB) was proposed by Ajzen and Fishbein (1980) and has been employed in the successful planning and evaluation of several interventions designed to address human behaviours. The theory suggests that behavioral intentions are influenced by attitude toward the behavior, subjective norm, and perceived behavioral control. According to its proponents, the theory predicts that planned behaviors are influenced by: (1) behavioral intentions (i.e., entrepreneurial readiness) which are largely determined by an individual's attitude toward behavior, (2) the subjective norms encasing the execution of the behavior from expectation of others (i.e., cultural norms, group beliefs, etc that influence people in the business environment), and (3) the individual's perception of their control over the behavior (i.e., psychological factors such as need for self actualization in business). Put within the context of this study, a positive attitude towards the entrepreneurial engagement, favorable social norms (culture, gender, ethnicity, inclusive business policies, etc) and high level of perceived behavioral control (readiness and need for self achievement in business) are the best determinants of forming a business intention, which subsequently leads to a entrepreneurial engagement. Because of the key premises of the theory, which are also similar to the variables explaining factors influencing entrepreneurial potentials; we argue that the theory is capable of evaluating young adults' readiness, engagement, motivations and limitations with regards to building a business in times of COVID-19. In addition, several empirical evidences exist (e.g., Afifi *et al.,* 2018; Al-Jubari, 2019; Lortie & Castogiovanni, 2015; Mirjana *et al.,* 2018) to attest to the capacity of the TPB to explain entrepreneurial behaviours among young people.

Methodology

We used a web-based survey design to examine how young Nigerian potential entrepreneurs perceive their readiness, engagement, motivations and limitations with regards to building a business in times of COVID 19. This was adopted as an alternative method to a face-to-face survey design which proved to be very difficult to conduct at a time like this. Another advantage of the web-based survey was due to its relative cost effectiveness (Couper, 2000). Other advantages related to cost-effectiveness include: a quicker response rate; easier to send reminders to participants; easier to process data; dynamic error checking capability; etc. (Zanutto, 2001). The study population includes all young adults, between 18-35 years in Nigeria (African Youth Charter, 2006).

The sample size of 1,067 was statistically derived. With a 95 percent level of confidence (confidence interval - $\pm$ 10%), an estimated level of perception of potential entrepreneurial readiness, engagement, motivations and limitations with regards to building a business in times of COVID-19 at 50% (.5) and a given error margin at .03 (3 percentage points), we derived a sample size for the study. The Cochran (1963, p. 75) equation '1' was used:

$$n = \frac{[Z/_2]^2 (p\ q)}{e^2} \quad n = \frac{[Z/_2]^2 (P)(1-P)}{e^2}$$

Where: n= sample size, Z^2= confidence level, p= rate of occurrence or prevalence (the estimated proportion of an attribute that is present in a population), q= complement of p and e= margin of error. Therefore;

$$n = \frac{[1.96]^2 0.5\ (1 - 0.5)}{0.05^2} \qquad n = \frac{3.8416\ (0.25)}{0.0009} \qquad n = 1067.1 = 1067.$$

We adopted a web-based purposive sampling. The sampling was a part of a larger study which aimed to investigate the public views of response to and management of the COVID-19 pandemic. We adopted the sampling approach because of the restriction placed on movement and in-person meetings during the study. We also used this sampling approach because the Internet recruitment has become increasingly popular among researchers who, at a relatively low cost, use it to engage large samples of people who are otherwise difficult to access (Barratt *et al.*,., 2014). In doing this, we recruited respondents using a campaign/advertisements targeted at social media users in Nigeria, who are mostly youths. We launched the recruitment campaign on Facebook, Whatsapp and Instagram. To achieve this, we used four short marketing texts in different combinations (through sharing, on the different platforms) to attract users to indicate interest in participating in the survey. Afterwards, potential respondents who indicated interest were contacted to provide an address to their email, Whatsapp or any other platforms. Individuals who agreed to participate in the study were then sent questionnaire items through each of the addresses they provided. The eligibility criteria was that respondents must: (1) be between 18-35 years, with a verifiable social media profile indicating that they reside in Nigeria at the time of the research, (2) be an active member of at least one social media platform – e.g., Facebook, Instagram, Twitter, etc., (3) have thought of one or more business ideas shortly before and during the COVID-19 pandemic (4) be willing to respond to our questions.

A questionnaire instrument of two parts was employed to elicit data. The instrument contained two sections. The first part pertained to respondents' personal demographics details (e.g., gender, religion, age category, ethnic origin, highest level of education and prior business involvement or engagement/experience). The second part of the questionnaire pertained to key research objectives and hypotheses that were previously raised. In this second part of the instrument, we developed a scale named: Young Potential Entrepreneurs Perceived Readiness, Engagement, Motivations and Limitations in Times of COVID-19 Scale (YPEPREMLTCS). The scale was divided in to five sub-sections. The first subsection focused on the perceived readiness of young entrepreneurs during the pandemic. All eight items were answered using a 4-point Likert scale (from 1-strongly disagree to 4-strongly agree). Some examples of the items are: "the fear of failing in business is not a problem and cannot distract me from starting one", "I am doing everything possible to start my own business", etc. In the present sample, the Cronbach's alpha score for the scale showed excellent reliability (α= .93). The second subsection looked at perceived engagement of young entrepreneurs during the pandemic. This is a single item and it was answered on a 4-point Likert scale (from 0-not at all to 3- to a great extent). The item reads: "To what extent have you started doing something about your business plan or idea"?. The third sub-section focused on the perceived motivations of young entrepreneurs during the pandemic. Respondents were asked to indicate the extent of their agreement with regards to each of the motivations itemized. Response options ranged from 1 (strongly disagree) to 5 (strongly agree). Some examples of the 13 item scale are: "the need to become a successful person in life is enough motivation for me", "My culture and tradition permits to do all kinds of legit business", "My family and friends are a big source of motivation for me at this point" etc. The fourth subsection focused on perceived limitations of young entrepreneurs during the pandemic. All 10 items were answered using a 4-point Likert scale (from 1-strongly disagree to 4-strongly agree). Some examples of the items are: "frustrating technicalities in bureaucracy associated with business startups", business policy measures excluding young people", improper branding and lack of access to international markets, "lack of skill sets in demand", etc. Here, the Cronbach's alpha score for the scale was impressive (α= .81). The last subsection looks at the youths' perceived effect of COVID-19 pandemic on business. The single item question: "To what extent do you think the COVID-19 pandemic has affected the ease of starting or sustaining business"? was answered on a 4-point Likert scale (from 0-not at all to 3- to a great extent). The combined α score for the all scales was highly reliable (α=.78).

In the administration of the questionnaire instrument, emails, Whatsapp and Facebook attachment (in the Microsoft document format) was sent to respondents who have signed up for the study. Reminders were sent to them from time to time to ensure that they filled the questionnaire on time. A consent form was also attached to the questionnaire items that were distributed through the social media platforms and other Internet platform (i.e., emails). Respondents were instructed on how to fill the questionnaire using the symbol sign on the MS word (√) to tick their desired space.

The descriptive and inferential statistics were used. The aim was to describe and compare the relationship and variance among variables of interests to the study. Among descriptive statistics methods, central tendency measures were used. The average mean value (cutoff point) for all the items in the scales was 2.50 = ($\frac{1+2+3+4}{4}$). Thus any item with mean value below 2.50 was considered low and those with the mean value of 2.50 and above were regarded as high (in terms of agreement to questions/items in the second part of the instrument) in the analysis. The means

and standard deviations scores were further used to assess youth entrepreneurial readiness, engagement, motivations and limitations in times of COVID-19. A simple linear regression was used to evaluate the impact of gender, age category, prior entrepreneurial experience and ethnic origin on young adults' perceived entrepreneurial readiness in times of COVID-19. A Pearson's Product Moment Correlation (PPMR) was employed to test whether young adults' need for self-actualization and achievement predicted entrepreneurial engagement in times of COVID-19. Furthermore, a hierarchical regression analysis was used to test for possible influences of socio-demographic variables on young people entrepreneurial engagement even when perception of the effects of the COVID-19 pandemic on businesses is controlled for. Statistical inference was made with at least 5% probability level. The IBM software (Statistical Packages for Social Sciences [SPSS 23.0]) was employed to aid the analysis of the data.

Results

Sample characteristics

The demographic attributes of respondents show 52% were female. While the majority of the respondents (59.2%) fell within the age range of 18-25, the rest (40.8%) was between 26-35 years. There were 48.2%, 43.5% and 8.3% of the respondents identifying as Christians, Muslims and Traditionalists respectively. Because of the long list of ethnic origin (32 in all) identified in the study, we classified respondents' ethnicity into larger ethnic origin: Hausa/Fulani/Kanuri (23.4%), Yoruba (20.6%) and Igbo (30%), Ibibio (22.9%), and Ijaw (3.1%). The classification was based on the groups' shared common language, common antecedents and common sets of customs and values. There were 56.4%, 33.3% and 10.3% students (in Universities, Polytechnics and Colleges of Education), graduates and primary and secondary school certificate holders respectively. The majority of the respondents (73.4) had no prior business experience.

Assessment of respondents' readiness, engagement, motivations and limitations with regards to building a business in times of COVID 19

Descriptive analysis shows that young adults' readiness to engage in building a business was high (grand mean [m] =3.53; standard deviation (SD) = 0.73). However, they scored very low in their engagement assessment in business during the pandemic (m = 1.41; SD = 2.93). Furthermore, respondents scored high with regards to their motivations to starting a business (m = 2.91; SD = 1.16). They also agreed to have been greatly limited by most of the institutional, social and personal factors (m = 2.99; SD = 1.00). Finally, young adults were of the view that the COVID-19 pandemic has affected the ease of starting or sustaining business (m = 3.21; SD = 0.78).

Table 1. Descriptive statistics and correlation output among subscales

Variable	Means	SD	Readiness	Engagement	Motivation	Limitation	Ease of doing business
Readiness	3.53	0.73	1				
Engagement	1.41	2.93	0.552**	1			
Motivation	2.91	1.16	0.332**	0.063**	1		
Limitation	2.99	1.00	-0.781**	-0.071*	-0.031**	1	
Ease of doing business	3.21	0.78	0.210*	0.451**	0.581**	0.731**	1

Note: Two-tailed Pearson correlation is significant at **p < 0.01., *p < 0.05.

H1. Gender, age category, prior entrepreneurial experience and ethnic origin have significant positive effect on young adults' perceived entrepreneurial readiness in times of COVID-19

Table 2. Simple linear regression results for perceived entrepreneurial readiness in times of COVID 19

Model	Unstandardized Coefficients (β	Std. Error	T	Sig.
Gender	.772	.281	3.162	.001
Age category	-1.231	.617	-2.110	.000
Prior entrepreneurial experience	2.711	.651	3.556	.001
Ethnic origin	.053	.358	.156	.770
R^2	.552			
ΔF	219.132			

Note. **p < .01.

A simple linear regression analysis was performed to evaluate the prediction of gender, age category, prior entrepreneurial experience and ethnic origin on perceived entrepreneurial readiness in times of COVID-19 among young adults. The result of the linear regression analysis revealed a model that was statistically significant at F (4, 1063) = 219.132, p < 0.001. In addition, the R^2 value of .552 associated with this regression model is an indication that these predictive factors account for 55.2% of the variation in perceived entrepreneurial readiness in times of COVID-19 among young adults. Findings about the individual unique contributions revealed that perceived entrepreneurial readiness were positively predicted by gender (b= .772, p=.001) and prior entrepreneurial experience ((**β** = 2.711, p=.001). Finding also shows a negative correlation between age category ((**β** = -1.231, p=.000) and entrepreneurial readiness among our sample. However, ethnic origin (**β** = 0.53, p=.770) did not have a significant contribution to the outcome in the model.

H2. Demographic factors will predict young people entrepreneurial engagement even when perception of the effects of the COVID-19 pandemic on businesses is controlled for

Table 3. Hierarchical linear regression result for young people entrepreneurial engagement

Independent Variable	Model 1 **B**	Model 2 **B**
Step1		
Perceived effect of COVID-19 pandemic on businesses	-.474**	-.345**
Step 2		
Gender		.034**
Religion		.013

Age category		-.230**
Ethnic origin		.048
Highest level of education		-.523**
Prior business engagement		.640*
R^2	.378**	.561**
ΔF	28.674**	8.765**
ΔR^2	.237**	.098**

Note. $^{**}p < .01$., $^{*}p < .05$.

A hierarchical linear regression analysis was conducted to evaluate the prediction of perceived effect of COVID-19 pandemic on businesses and demographic characteristics of respondent on entrepreneurial engagement. For the first block analysis, the predictor variable was analysed. The result of the first block hierarchical linear regression analysis revealed a model that was statistically significant at F (1, 1066) = 28.674, p < 0.001. Additionally, the R^2 value of .237 associated with this regression model suggest that perceived effect of COVID-19 pandemic on businesses accounts for 23.7% of the variation in youths' entrepreneurial engagement, which means that 76.3% of the variation in entrepreneurial engagement cannot be explained by respondents' perceived effect of COVID-19 pandemic on businesses alone.

For the second block of analysis, the list of demographic variables was added to the analysis. Result showed the model to be statistically significant at $F(8, 1059) = 8.765$, p < 0.001. Additionally, the R^2 value of .561 associated with this regression model indicate that the addition of demographic variables to the first block model accounts for 56.1% of the variation in entrepreneurial engagement. The ΔR^2 of .098 revealed 9.8% change of the variation in entrepreneurial engagement when demographic factors were added to the model.

The individual unique contributions indicates that perceived effect of COVID-19 pandemic on businesses predicted entrepreneurial engagement at step 1 (**β** = -.474, p<.001) and step 2 (**β** = -.345, p<.001). The negative relationship indicates that the more young adults felt like the COVID-19 pandemic has affected the ease of starting or sustaining business, the less they engage in entrepreneurship and vice versa. In addition, the relationship between entrepreneurial engagement and gender (**β** = .034, p<.001), age category (**β** = .230, p<.001), highest level of education (**β** = -.523, p<.05) and prior business engagement (**β** = .640, p<.001) reached statistical significance. However, religion (**β** = .013, p>.05) and ethnic origin (**β** = .048, p>.05) were not positively correlated with entrepreneurial engagement.

H3. Young adults' need for self-actualization and achievement will predict entrepreneurial engagement in times of COVID-19

A Pearson's Product Moment Correlation (PPMR) was conducted to determine the correlation between young adults' need for self-actualization/achievement and entrepreneurial engagement in times of COVID-19. Data on the need for self-actualization/achievement was obtained from one item ("the need to become a successful person in life is enough motivation for me") in the third subsection of the scale used in the study. Result shows that there was a strong, positive correlation between the two variables (r=.67, n=1067, p<.01), with higher need for self-actualization/achievement leading to higher level of entrepreneurial engagement and vice versa.

Discussion

The study examined how young Nigerian potential entrepreneurs assess their readiness, engagement, motivations and limitations with regards to building a business in times of COVID-19. The study was carried out in view of the need to mitigate the impact of COVID-19 on youth entrepreneurship, especially in developing countries with debilitating unemployment statistics and realities.

Nevertheless, our finding revealed that young adults' readiness to engage in building a business was high. The outcome is consistent with previous studies (e.g., Melugbo, 2019; Olugbola, 2017; Staniewski & Szopiński, 2015) which indicated that young adults across different samples were ready to become entrepreneurs. We also found that young adults scored very low in their engagement assessment in business during the pandemic. This finding is an agreement with extant research like that of Osakede *et al.,* (2017) who reported that there was a relatively low entrepreneurial engagement among students of the University of Ibadan, Nigeria. Results showed that while young people in our sample were highly motivated by the need for self-actualization and achievement, societal value for hard work, etc., they were equally affected by institutional, social and cultural barriers. Empirical studies supporting our finding on both motivational (e.g., Barba-Sánchez & AtienzaSahuquillo, 2012; McClelland, 1965; Reynolds, Carter, Gartner, & Greene, 2004; Shane, *et al*., 1991; Sivarajah & Achchuthan, 2013) and limitation (e.g., Beeka, 2015; Boateng *et al.,* 2014) factors abound. Finally, we found that young adults perceived that COVID-19 pandemic has affected the ease of starting or sustaining business.

Altogether, these findings highlight the likely state of entrepreneurial activities through the views of young people in Nigeria. Despite the great potentiality manifested by respondents, their low level of engagement in entrepreneurial activities may be explained due to the increasing unemployment rates resulting from the combined effects of the pandemic. Recent statistics show that youth (15-34 years) unemployment rate in Nigeria had jumped from 29.7% to 34.9% in the second quarter of 2020 (Oyekanmi, 2020). These findings have important implications for pro-entrepreneurial policy and intervention initiatives in times of a global pandemic like the COVID-19. Consequently, stakeholders in entrepreneurship development could do more to make policies and interventions that are more youth-inclusive.

Our first hypothesis revealed that gender, age category and prior entrepreneurial experience significantly affected young adults' perceived entrepreneurial readiness in times of COVID -19. These findings corroborate findings from previous studies (e.g., Bruni *et al.,* 2004; Cheraghi & Thomas, 2015; Moa-Liberty *et al.,* 2016; Nguyen, 2018) indicating that youth entrepreneurial

activities were associated with their demographic characteristics. However, ethnic origin, which was one of the predictors in the analysis, was not significantly correlated with youth's entrepreneurial readiness. This could imply that in preparing to start a business at a time like this, such variables as gender, age and prior business experience were more important than where people hailed from. We also found a negative relationship between age and entrepreneurial readiness. This suggests that respondents in the older category could be experiencing a decline in entrepreneurial readiness compared to the younger category of young adults. The reason for this might be that the younger category of younger adults might have considered themselves fit and more capable of succeeding in business just because they are at their prime. Policy and intervention initiatives could therefore focus on the older category of young adults and see how they can improve their sense of readiness in times of COVID-19 pandemic.

We also found that demographic factors predicted young people entrepreneurial engagement even when perception of the effects of the COVID-19 pandemic on businesses was controlled for. The perceived effects of the COVID-19 pandemic on businesses were identified as a crucial factor that could expand the understanding of demographic factors on young people entrepreneurial engagement. Although our findings are consistent with previous research (e.g., Bruni *et al.*, 2004; Cheraghi & Thomas, 2015; Moa-Liberty *et al.*, 2016; Nguyen, 2018) on the influence of demographic factors on young people entrepreneurial engagement, it extends knowledge on the mediating role of their perceived effects of the pandemic on business. In other words, the manner with which young adults construct their understanding of business especially in times of economic emergencies, could in part explain why many couldn't engage in entrepreneurial activities. This is also a pointer to the fact that young people are losing confidence in the capacity of the business environment to protect their interests. Therefore, by cushioning the economic downturns from COVID-19 pandemic, we might begin to restore the confidence of young potential entrepreneurs. We are aware that the Nigerian government has recently launched the Special Public Works Programme (SPW) aimed at creating more jobs to address the negative effects of the Coronavirus pandemic. Although this programme is laudable at such a time like this, it does not provide a clear road map for harnessing the entrepreneurial potentials of young adults. To this end, policy formulation focusing on economic recovery must begin by addressing the lack of youth inclusiveness and further aim at improving young potential entrepreneurs' attitude to business creation.

Another interesting finding was that age category and educational level of young adults negatively influenced entrepreneurial engagements in our study. Put differently, those with higher educational level (graduates) and those who are older did not engage in entrepreneurial activities. While we suspect that those who are younger might have got engaged in business activities due to their self-belief (especially being at their prime), the graduates or even students might be thinking that they are far too advanced to be involved in entrepreneurial activities. This may be particularly true because we live in a society where a certain prestige is attached to paid employment at the expense of self-employment or entrepreneurship. Interventions and policy programmes should be directed towards informing young graduates on the several benefits of engaging in entrepreneurship especially at a time like this.

We also confirmed our third hypothesis indicating that young adults' need for self-actualization and achievement will predict entrepreneurial engagement in times of COVID-19. Finding showed a strong, positive relationship with higher need for self-actualization/achievement

correlating with higher level of entrepreneurial engagement and vice versa. This finding is related to results from previous studies (e.g., Barba-Sánchez & AtienzaSahuquillo, 2012; McClelland, 1965; Sivarajah & Achchuthan, 2013) suggesting that the need for self-actualization and achievement were associated with entrepreneurial readiness, motivation and engagement across various sample. Our finding further highlights the importance of understanding young adults' need for self-actualization and achievement in improving youth entrepreneurship drive during crisis.

Based on our findings, the theory of planned behavior (TPB) which was proposed by Ajzen and Fishbein (1980) has extended evidence on how behavioral intentions (i.e., entrepreneurial readiness, etc.), subjective norms (i.e., cultural norms, group beliefs, etc that influence people in the business environment), and individual's perception of their control over the behavior (i.e., psychological factors such as need for self actualization in business) could play vital roles in entrepreneurial outcomes. Therefore, as several governments consider full reopening of their economy, it is important that COVID-19 entrepreneurial policies and procedure factor in the roles of young potential entrepreneurs on the road to economic recovery.

This study is not left without limitations. First, the study used a non-probability sampling technique in the selection of respondents. As a result, our findings may not be generalizable and should be interpreted with caution. Future studies focusing on the post COVID-19 era should adopt probability sampling techniques especially when the obstacles (e.g., inability to conduct face to face interviews) presented by the Covid-19 pandemic are overcome. Future research could also increase their sample size in order to improve on the representativeness of the sample.

Conclusion

Based on the findings of this study, we conclude that although many respondents showed impressive entrepreneurial readiness and motivations, they did not actually engage in entrepreneurial activities during the COVID-19 pandemic. We also conclude that certain socio-cultural as well as institutional variables affect their lack of engagement. Finally, we observed that few demographic characteristics (i.e., educational level and age category of young adults) provided interesting insights into basic entrepreneurial outcomes in times of COVID-19.

Conflict of interest

Authors declare no conflict of interest.

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