Entrepreneurial scaled behavioural indicators: Concept development and measure validation

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Abstract: The paper validated an instrument for measuring institutional profile for entrepreneurial activity in three economies in the Sub-Saharan Africa—specifically: Ghana, South Africa and Nigeria. The application of Scott’s taxonomy and Busenitz survey instrument consisting of regulatory, cognitive and normative dimensions of the institutional environment was used for the study. Ajzen’s theory of planned behavior was also employed as a theoretical underpinning of the study. A cross-sectional assessment design with three samples—one from each country was employed. The findings were extracted using Structural Equation Modelling with Amos version 24 software. A total of 663 questionnaires were elicited from different Business Schools in Ghana, South Africa and Nigeria. It was observed that Busenitz and others taxonomy was appropriate in measuring entrepreneurial activity in Africa, characterised with significant differences in the three dimensions of the institutional profiles across the countries towards entrepreneurial campaign. Inferences for future research, managerial practice and policy initiatives were all discussed.

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PUBLIC INTEREST STATEMENT

The authors applied Busenitz et al.’s (2000) instrument to explore the feasibility of the institutional environments for promoting entrepreneurship in three African countries namely: Ghana, Nigeria and South Africa. The findings of the study revealed that Busenitz et al.’s country institutional profile scale was appropriate in conducting research on the impact of institutional environment on entrepreneurship in the African continent. Notwithstanding the various variances in the institutional profiles, there were substantial differences in the fundamental dimensions encompassing the institutional environment among the chosen countries. Nigeria topped the list in all the dimensions, while Ghana scored the lowest on the regulatory dimension—with South Africa recording the lowest on both the cognitive dimension and the normative dimensions. The findings contribute meaningfully to the literature on validation measure in the area of entrepreneurship in Africa. The results have extensive inferences for academic, practice and policy.
1. Introduction

Entrepreneurship has become a mechanism that drives innovation and encourages economic growth as revealed by Schumpeter (1934); McMullen (2011); Bruton, Ketchen, and Ireland (2013); Alvarez and Barney (2014); Shepherd (2015); Markman, Russo, Lumpkin, Jennings, and Mair (2016); Ansah and Chinomona (2017) as well as Wiberforce, Baker, Audretsch, and Gartner (2017). It has been acknowledged by researchers and practitioners as an influential mechanism to address unemployment (Pache & Santos, 2013; Tracey, Phillips, & Jarvis, 2011); transfer of technology and knowledge (Grimaldi, Kenney, Siegel, & Wright, 2011; Plummer & Acs, 2012; Terjesen & Wang, 2013); empower women (Zhao & Wry, 2016); lessen poverty (Battilana & Dorado, 2010; Cobb, Wry, & Zhao, 2016); job creation (Blanchflower, 2000; Parker, 2009); control climate change (Jay, 2013); productivity (Van Praag & Versloot, 2007); reconstitute disaster-wreaked communities (Williams & Shepherd, 2016, Williams & Shepherd, 2016) of the underdeveloped markets—that are characterised with perverse problems (Zahra, Hashmi, Malik, & Ahmed, 2014; Battilana & Lee, 2014; Bruton et al., 2013).

The section and path of entrepreneurship in economies and markets are expressively controlled by institutional environment (Ahlstrom & Bruton, 2002; Smallbone & Welter, 2006); which according to Aronson (1991) as well as Rondinelli and Kasarda (1992), there is inadequate indulgence of why rates of entrepreneurship differ across the globe and why some start-ups are prosperous in one country and differs in the other. There are numerous research works on the African continent—regarding entrepreneurship. However, little empirical research works exist to test the reliability of the measures on entrepreneurship.

Research works by Scott (1995) on institutions and organizations and Kostova (1997) also on country institutional profiles: Concept and measurement led to the introduction of the three-dimensional country institutional profile such as the regulatory dimension; the normative dimension as well as the cognitive dimension—which have all contributed to the development of entrepreneurial growth in other countries. They highlighted how countries' institutional profiles tend to mislay their significance—once they are pigeon-holed as a set of issues across the globe. Busenitz et al. (2000) employed the framework and designed a survey instrument to measure a country's institutional profile—which was later seen as theoretically and empirically unique. Spencer and Gómez (2004) opined that the application of the framework, in terms of regulatory, cognitive and normative dimensions tend to delineate the unconventional developments of accomplishment exposed to firms—with respect of market dealings. Dacin, Dacin, and Matear (2010) recommended robust research designs in tackling and measuring mechanisms that impede societal venture resource acquisition. Jennings, Greenwood, Lounsbury, and Suddaby (2013) also advocated for a thorough thoughtfulness to be given to cross-national measurable datasets. Empirical research has concentrated fixedly on culture as revealed by Busenitz et al. (2000) and Hofstede’s (1980), whose dimensions of culture have a greater influence on countries’ entrepreneurial inclinations. Manolova, Eunni, and Gyoshev (2008) also observed that empirical research has still not come up with operative scales in evaluating multifaceted influence of the institutional environment on entrepreneurial phenomena. Data on entrepreneurial meaning and activity from the Global Entrepreneurship Monitor (GEM) and the Global University Entrepreneurial Spirit Students’ Survey (GUESSS) have all demonstrated substantial differences among countries concerning their entrepreneurial activity (Bosma, Levie, & Planologie, 2010).

Many of the entrepreneurial research tend to focus on clarifying variances in actual business establishment (Bowen & De Clercq, 2008; McMullen, Bagby, & Palich, 2008) while others employ
micro or macro-oriented methods in reviewing these phenomena. The measurement test on entrepreneurship had turned out to be more multifaceted in nations (Audretsch, Keilbach, 2006; Djankov, Glaeser, La Porta, Lopez-de-Silanes, & Shleifer, 2003; Reynolds et al., 2005). According to Dimov (2007), the application of different techniques on same studies is more likely to lead to unreliable conclusions. Ácsa, Autio, and Szerb (2015) also observed how numerous years of research works in entrepreneurship have led to diverse measurement challenges regarding the concept. According to Busenitz et al. (2000), cross-national changes in entrepreneurship are explicated through a wider set of establishments that guide and oblige business behavior in each national economy. The over-reliance on western countries’ models in the Sub Saharan African countries has been a bane towards entrepreneurial activities in the past years.

In addressing the essential gaps in the literature, the current study validates an instrument developed by Busenitz et al. (2000) to determine a country’s institutional profile for the sphere of entrepreneurship in Africa—specifically: Ghana, South Africa and Nigeria. Also, the authors prolonged Busenitz et al.’s work by employing their measurement items to examine the differences in the institutional contexts of the three countries and to observe which national frameworks are favorable for entrepreneurship among the chosen countries.

The rest of the article is structured as follows: Literature review, the methods used in the study, findings and discussion of the results are also provided.

2. Literature review

2.1. Theory of planned behavior (TPB)
Entrepreneurial intentions are mostly moulded by influential factors regarding planned behavior which result from perceived behavioral control, personal attitudes and social norms. Stimulatingly, the extant empirical studies had demonstrated that Azjen’s model was conducted using university students’ as a sample (Autio, Keeley, Klofsten, Parker, & Hay, 2001; Liñán, Urbano, & Guerrero, 2011).

Relying on the calls to apply the TPB model by comprising precursors, such as the institutional influences on individual cognitions as observed by Lim, Morse, Mitchell, and Seawright (2010) and Liñán et al. (2011); it is believed that the application of the TPB model on institutional perspective is more likely to bring astute, and vigorous enlightenment about entrepreneurial intentions and entrepreneurial behavior among university students.

2.2. The regulatory dimension
The regulatory dimension of the institutional profile comprised by-laws, guidelines, and government procedures that offer support for starting new business—which usually expedites entrepreneurs’ exertions to obtain start-up capitals or resources. According to Rondinelli and Kasarda (1992), organisations get resources that are offered through government-supported start-ups that tend to jumpstart entrepreneurs in their entrepreneurial journey. The regulatory component contains the “existing laws and rules in a specific country that encourage some entrepreneurial behaviors and control others” (Kostova & Roth, 2002). The dimension tends to impact entrepreneurial processes through policy measures (Bruton, Ahlstrom, & Li, 2010; Lim et al., 2010).

The current research employed the regulatory dimension definition by Busenitz et al. (2000), which basically described the dimension as the various laws, regulations and policies provided by government in countries to support new business activities.

2.3. The cognitive dimension
The cognitive dimension involves the knowledge and skills possessed by persons in a country, regarding the establishment and functioning of a new-fangled business. Kostova and Roth (2002) defined cognitive dimension defined as “the widely shared social knowledge and cognitive categories used by the people in a given country, that influences the way a particular phenomenon is
categorized and interpreted”. “Knowledge on how to start new businesses occurs in many countries (Busenitz & Lau, 1996). Some countries tend to institutionalize some issues and knowledge for people to become a measure of a mutual public or societal knowledge (Busenitz & Barney, 1997; Lau & Woodman, 1995).

Cognitive dimension in the study was operationalised as “the knowledge and skills possessed by the individuals or people in a country pertaining to establishing and operating a new business” (Busenitz et al., 2000, p. 995).

2.4. The normative dimension
The normative dimension describes the notch at which residents in a particular country regard entrepreneurial activity as a creative and a ground-breaking business idea. The normative dimension replicates the values, beliefs, norms, and shared assumptions of people that is believed by persons in a particular country (Bruton et al., 2010; Kostova & Roth, 2002). Busenitz and Lau (1996) as well as Tiessen (1997) observed that entrepreneurship researchers have contended that a country’s culture, values, beliefs and norms have greater effects on its entrepreneurial orientation of its inhabitants. The operational definition of the normative dimension was also based on Busenitz et al. (2000, p. 995), which explained the normative dimension as “the degree to which a country’s residents admire entrepreneurial activity and value creative and innovative thinking”.

3. Methodology

3.1. The survey instrument
Scott (1995) proposed an institutional classification based on regulatory, cognitive and normative dimensions. His approach was used to adapt the survey technique of Busenitz et al. (2000), which used a five-level scale for the regulatory dimension and a four-level scale for the cognitive and normative dimensions. The variables were limited to three constructs as suggested by Nunnally (1978). They were measured on a 7-point Likert Scale, which was anchored on: 1 = strongly disagree; 2 = disagree; 3 = disagree somewhat; 4 = neutral; 5 = agree somewhat; 6 = agree to 7 = strongly agree.

3.2. Population and sample
The sample involved 663 students who were selected from the various business schools in the three countries. Two hundred and sixty respondents were sampled from Ghana; 203 respondents were sampled from South Africa, while 200 respondents were sampled from Nigeria. The study employed the method that was used by Busenitz et al. (2000), regarding the sampling of the students from the classroom situation. Final year business school students from the three selected countries were used and they are presented below:

Table 1 presents the samples from the respective countries. The use of non-probability sampling techniques such as purposive sampling and convenient sampling techniques were employed in getting the numbers that were used for the final analysis.

| Country       | Number |
|---------------|--------|
| Ghana         | 260    |
| Nigeria       | 200    |
| South Africa  | 203    |
| **Total**     | **663**|

Source: Authors’ own construct (2017)
3.3. Control variables
The inclusion of control variables in the study helped to ensure that the authors did not overlook the unconventional explanations for results. A thorough screening exercise was undertaken to limit the influx of other nationals studying in the selected countries for the validation process. The authors therefore controlled for the percentage of international students whose backgrounds were not the same as nationals from the chosen universities (Engelen & Brettel, 2011).

3.4. Rationale for students’ and countries’ sampling
The use of students from the various business schools (institutions) across the three countries relies on evidence from Lévesque and Minniti (2011) as well as Xavier, Kelley, Kew, Herrington, and Vorderwülbecke (2012) who opined in their research that, university students’ acuities are grounded on preceding studies that had revealed that, those who start new firms typically do so between 25 and 34 years of age—signifying an idea in having locus of control after finishing college or university. According to Gürol and Atsan (2006), students who are exposed to entrepreneurial intents demonstrate an extensive risk, need for accomplishment, locus of control, urgency towards establishing a business than students without entrepreneurial intents or exposure. It is also evident that the level of education coupled with the technological savvy to succeed in business activities in the twenty-first century has the likelihood of putting students at better positions to succeed in entrepreneurial activities due to their inventiveness and essential skills. The three countries were chosen because of their noticeable sameness and variances in their institutional environments towards entrepreneurial activities.

3.5. Data collection and analysis with structural equation modelling (SEM)
The survey was conducted using the same questionnaires across the various business schools in Ghana, South Africa and Nigeria. Convenience and purposive sampling techniques were used in collecting the data from the three countries, which took 6 months in getting the required number for the study. Convergent and discriminant validity approaches were employed using Anderson and Gerbing (1988) and Liu and Jang (2009), in determining the validity of the study; a Cronbach’s Alpha was used also to assess the reliability of the instruments.

Structural equation modelling (SEM) statistical technique was performed through a confirmatory factor analysis (CFA) on the institutional profile measures to substantiate the factor structure of the observed variables. The authors tested the hypothesised relationships by assessing a full structural equation model (SEM) using AMOS version 24. Likened with traditional methods, SEM offers benefits for numerous reasons. In the first place, SEM combines both observed and unobserved or latent variables while traditional methods are based on observed measurements. In addition, SEM’s capability to evaluate measurement error makes it valuable for a plethora of research variables to be evaluated in the marketing field (Hair, Hult, Ringle, Sarstedt, & Thiele, 2017). Also, there is no other extensively applied the alternative technique for testing interval indirect effects than SEM (Bagozzi & Yi, 2012). Lastly, SEM allows researchers with a wide-ranging tool for scrutinising and amending theoretical models (Anderson & Gerbing, 1988).

3.6. Measure validation
Covariance Structural Equation Modelling (C-SEM) by means of Analysis of Moment Structure (AMOS) software was used for the current study. According to Hwang, Malhotra, Kim, Tomiuk, and Hong (2010) and Henseler (2012), C-SEM has been observed to improve loadings, parameters and path coefficients better. It also produces unbiased parameter estimates. The confirmatory factor analysis was performed and the following results were obtained:

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\text{Chi-square/Degree of freedom (CMIN/DF)} = 1.462, \quad \text{Goodness-of-Fit Index (GFI)} = 0.905, \quad \text{Normed Fit Index (NFI)} = 0.922, \quad \text{Incremental Fit Index (IFI)} = 0.900, \quad \text{Tucker Lewis Index (TLI)} = 0.902, \quad \text{Comparative Fit Index (CFI)} = 0.922, \quad \text{Root Mean Square Error of Approximation (RMSEA)} = 0.041,
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confirming that they all met the recommended threshold as shown below in Figure 1.
Table 3. Depicts a comparison of Busenitz findings with that of the current study. The threshold of the preceding study was inconsistent with that of the current study as explained in the above table with Comparative Fit Index = CFI; Normed Fit Index = NFI; Incremental Fit Index = IFI as well as the Random Measure of Standardised Approximation = RMSEA surpassing the accepted threshold of 0.9 for all while RMSEA was that of less than 0.8.

The Cronbach alpha was used to determine the internal consistency or how closely related the set of items were as a group. It is evident from Table 4 that the value for each of the dimensions was all greater than 0.7, a threshold which signified that, there was a greater consistency of the used measurement items (Bagozzi & Yi, 2012).

Table 5 explains the various institutional profiles of the three countries using the mean values. First and foremost, findings from the study revealed a greater “Regulatory dimension” in Nigeria than both South Africa and Ghana—with 4.81, 4.22 and 2.10, respectively. In addition, findings on the “Cognitive dimension” also positioned Nigeria as the number one country among the countries with a high cognitive dimension value of 4.74 followed by South Africa with 4.44 while Ghana recorded the least with 2.11. On the “Normative dimension” measure, it was observed that Nigeria again had a greater rank order number of 5.580, followed by Ghana with 4.19 while South Africa had the least with 3.65. The overall findings from the institutional profiles had demonstrated that
Nigeria has a greater regulatory dimension, cognitive dimension as well as a normative dimension among the selected countries for the study.

4. Presentation and discussion of results

4.1. Presentation of results

A confirmatory factor analysis (CFA) was used in validating the suitability of Busenitz et al.’s (2000) measurement model to be used in the African setting. The data observed acceptable goodness-of-fit indicators signifying that the proposed model fits the data well. Convergent validity was confirmed since all factor loadings exceeded the recommended threshold of 0.5. as well as the inter-construct correlation matrix which was also used in assessing validity of the three dimensions as seen in Table 2. Average variance extracted (AVE) values exceeded the 0.5 threshold (Anderson & Gerbing, 1988). Internal consistency was acceptable with Cronbach’s alpha exceeding the minimum requirement of .7. Discriminant validity was also assured since all the squared correlations between the two constructs were less than the AVEs (Hair, Black, Babin, & Anderson, 2013).

Evidence from Figure 1 had shown that loadings that were below 50% could not be used as part of the measurement items in measuring entrepreneurial activities within the three countries. Series of adjustments were made using the modification indexes until the loadings reached a point where deletion of items became necessary towards the completion of the CFA. Under regulatory dimension, all the items loaded above 50% and therefore passed the test of suitable future measurement. Cognitive dimension had one item deleted (Cognitive 4) because the loading was 35% while “Normative dimension” also had one deleted item (Normative 4). It therefore concluded that Busenitz et al. (2000) survey instrument was appropriate in measuring institutional profile in countries such as Ghana, Nigeria and South Africa but not with all the measurement items.

4.2. Discussion

In the study, the authors carried out a validation activity on Busenitz et al.’s (2000) measurement items to examine the institutional profile of Ghana, Nigeria and South Africa on entrepreneurial activity. Findings from the confirmatory factor analysis revealed a high reliability and validity regarding Cronbach alpha, discriminant and convergent validity.

The findings revealed that the institutional environment and the three original measurement items were satisfactory in measuring entrepreneurial activity in the three countries but there were differences in the institutional profiles of the three countries. Nigeria surpassed the three countries in the regulatory dimension followed by South Africa while Ghana occupied the last position. The regulatory component contained the “existing laws and rules in a specific country, which encourage some entrepreneurial behaviors and control others” (Kostova & Roth, 2002). According to Busenitz et al. (2000), the regulatory dimension comprised the various laws, regulations and policies provided by governments in countries to support new business activities. It therefore demonstrated that policies and laws in Nigeria regarding entrepreneurial activities were stronger than that of South Africa and Ghana.

In examining the cognitive dimension profile of the three countries, it was observed that Nigeria emerged as the best among the three, followed by Ghana and South Africa, respectively. A definition by Busenitz et al. (2000, p. 995) on cognitive dimension relied on “the knowledge and skills possessed by the people in a country pertaining to establishing and operating a new business”, which according to Kostova and Roth (2002) is defined as “the widely shared social knowledge and cognitive categories used by the people in a given country that influence the way a particular phenomenon is categorized and interpreted”. The findings have shown that Nigeria as a country possesses a stronger knowledge and skills in venturing into entrepreneurial activities than Ghana and South Africa. It simply shows that South Africa is the least among the selected countries whose nationals do not have the requisite knowledge and skills in entrepreneurial activities.
Table 2. Means, standard deviations (SD), and correlations for all dimensions

| Dimension    | M   | S   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Regulatory 1 | 3.67| 1.92|     |     |     |     |     |     |     |     |     |     |     |     |
| Regulatory 2 | 4.07| 2.13| 0.40*|     |     |     |     |     |     |     |     |     |     |     |
| Regulatory 3 | 4.33| 1.97| 0.61*| 0.43*|     |     |     |     |     |     |     |     |     |     |
| Regulatory 4 | 4.45| 1.95| 0.58*| 0.68*| 0.48*|     |     |     |     |     |     |     |     |     |
| Regulatory 5 | 3.76| 2.29| 0.47*| 0.60*| 0.68*| 0.51*|     |     |     |     |     |     |     |     |
| Cognitive 1  | 3.91| 1.88| 0.10 | 0.08| 0.21*| 0.06|     |     |     |     |     |     |     |     |
| Cognitive 2  | 3.84| 1.79| −0.08| 0.07| 0.09| 0.01| 0.19*| 0.33*|     |     |     |     |     |     |
| Cognitive 3  | 4.00| 1.83| −0.10| 0.17| 0.11| 0.14*| 0.11| 0.58*| 0.43*|     |     |     |     |     |
| Cognitive 4  | 3.44| 1.85| −0.11| −0.06| −0.05| −0.16| 0.32*| 0.28*| 0.26*|     |     |     |     |     |
| Normative 1  | 4.63| 1.93| 0.01 | 0.26| 0.21| 0.20*| 0.22*| 0.41*| 0.32*| 0.44*| 0.07|     |     |     |
| Normative 2  | 4.43| 1.65| 0.06 | 0.02| 0.14| 0.08| 0.04| 0.39*| 0.20*| 0.29*| 0.29*| 0.45*|     |     |
| Normative 3  | 5.04| 1.74| −0.07| 0.10| 0.00| 0.11| 0.05| 0.24*| 0.32*| 0.34*| 0.18*| 0.53*| 0.34*|     |
| Normative 4  | 4.89| 1.79| −0.08| −0.15| −0.02| −0.06| 0.00| 0.23*| 0.19*| 0.19*| 0.09*| 0.27*| 0.37*| 0.37*|

Note: M = Mean, SD = Standard deviation.

Note: The mean values between 3.44 and 5.04 were used to summarise a large amount of data and indicate if there was a variability around the single value within the original data while the standard deviation was used in the above table to explain the spread out of the data on the three dimensions. It is clear from the table that low standard deviation values between 1.65 and 2.29 showed that the points from the various dimensions were closer to the average.
Normative dimension profile according to Busenitz et al. (2000, p. 995) is “the degree to which a country’s residents admire entrepreneurial activity and value creative and innovative thinking”. Kostova and Roth (2002); Bruton et al. (2010) ascribed the dimension to mean: values, beliefs, norms, and shared assumptions on human nature and human behavior which are held by persons in a particular country. On the issue of interest into entrepreneurial activities by the various respondents of the three countries, it was observed that respondents from Nigeria had a greater interest towards entrepreneurial activities which was followed by Ghana and South Africa in that order. It showed that naturally Nigerians are business-minded people among the countries that were selected for the study.

The overall objective of the study was to authenticate a survey instrument developed by Busenitz et al.’s (2000) for measuring institutional environments of selected business economies in Africa: Ghana, Nigeria and South Africa. The study was also carried out to associate the institutional environments of the named countries to test which of the three was more constructive in terms of entrepreneurial activities. Relying on the data set of 663 business students in the named countries, it was evident that the Busenitz et al.’s instrument was usable not merely for advanced countries that the measurement items were designed for but was also useful for measuring the institutional profiles of the developing economies in the Sub-Saharan Africa. Overall, it was observed that respondents from Nigeria have strong entrepreneurial profile in terms of policies, mindset on business as well as general interest into entrepreneurial activities than Ghana and South Africa.

4.3. Conclusion
The study has demonstrated that Busenitz et al.’s (2000) measurement item for institutional environments was also appropriate for the developing economies. It also indicated that respondents from

| Table 3. A comparison of Busenitz findings and that of the current study |
|--------------------------|----------------|----------------|
| Indicator                | Busenitz et al. (2000) | Our Study |
| Number of factors extracted | 3 | 3 |
| Scale reliabilities | | |
| Regulatory dimension | 0.76 | 0.86 |
| Cognitive dimension | 0.68 | 0.70 |
| Normative dimension | 0.81 | 0.72 |
| Overall | 0.78 | 0.77 |
| Goodness-of-fit indicators | | |
| CFI | 0.94 | 0.92 |
| NFI | 0.91 | 0.92 |
| IFI | 0.94 | 0.90 |
| RMSEA | 0.05 | 0.04 |

Note: Comparative Fit Index = CFI; Normed Fit Index = NFI; Incremental Fit Index = IFI as well as the Random Measure of Standardised Approximation = RMSEA.

| Table 4. Reliability using Cronbach alpha values |
|----------------|----------------|----------------|
| Variable        | Number of items | Cronbach alpha values |
| Regulatory dimension | 5 | 0.804 |
| Cognitive dimension | 3 | 0.799 |
| Normative dimension | 3 | 0.754 |

Source: Authors’ own construct (2019).
Table 5. Means, standard deviations, rankings analysis of the variances

| Country       | Institutional profile | Regulatory | Cognitive | Normative |
|---------------|-----------------------|------------|-----------|-----------|
|               | Rank | Mean | S.D. | Rank | Mean | S.D. | Rank | Mean | S.D. | Rank | Mean | S.D. |
| Ghana         | 3    | 2.10 | 1.26 | 3    | 2.11 | 1.24 | 2    | 3.37 | 1.52 | 2    | 4.19 | 1.84 |
| Nigeria       | 1    | 4.81 | 0.84 | 1    | 4.74 | 0.88 | 1    | 5.16 | 1.33 | 1    | 5.80 | 0.98 |
| South Africa  | 2    | 4.22 | 1.85 | 2    | 4.44 | 2.00 | 3    | 2.38 | 1.58 | 3    | 3.65 | 1.88 |
| F-test (df = 2,659) | 253.98*** | 236.44*** | 180.90*** | 94.26*** |

Source: Field survey (2017)
Nigeria had attested to how strong they were on the entrepreneurial profiling than Ghana and South Africa. In addition, result also found South African respondents to be less cognitively and keenly fascinated about entrepreneurial activities. Similarly, it was also observed that Ghana was the least among the various countries with weak entrepreneurial policies, regulations and laws.

4.4. Implications for theory, practice and policy
This study has inferences for entrepreneurship theory, managerial practice as well as public policy. For those in the academic arena, the findings of the study, first, support further research in the context of developing economies in the Sub-Saharan African countries using a scale for developing market economies. In addition, the findings also signal small and medium-sized business owners and managers of the differences in the institutional profiling among the three countries that are more likely to provide deep insight into future international business activities. Finally, for public policymakers, the current study submits ways to augment the institutional framework to support entrepreneurship activities in general through the various regulatory factors, cognitive activities as well as the normative activities solely for particular nationals on entrepreneurship.

4.5. Limitations and future research
Irrespective of the study’s findings being fascinating and imperative, the study still has some limitations. First, the substantiation of the Busenitz et al.'s (2000) scale relied on samples from only three countries in Africa and can therefore not be a generalised representation for the entire continent. Future research ought to consider a greater majority of the countries in Africa. Finally, the use of non-probability sampling other than a probability sampling is likely to serve as an inhibiting factor towards generalisation.

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APPENDIX
Institutional Profile of the selected countries
Participants were provided with instructions with a question such as: “Think of your country and tell us the extent to which you agree with the following statements” (1 = strongly disagree, 2 = disagree, 3 = disagree somewhat, 4 = neutral, 5 = agree somewhat, 6 = agree, and 7 = strongly agree). The name of the variable used in analyses is in parentheses after the suitable item.

Regulatory Dimension
(1) Government organizations in this country assist individuals with starting their own business.

(2) The government sets aside government contracts for new and small businesses.

(3) Local and national governments have special support available for individuals who want to start a new business.

(4) The government sponsors’ organizations that help new businesses develop.

(5) Even after failing in an earlier business, the government assists entrepreneurs in starting again.

Cognitive Dimension
(6) Individuals know how to legally protect a new business.

(7) Those who start new businesses know how to deal with much risk.

(8) Those who start new businesses know how to manage risk.

(9) Most people know where to find information about markets for their products.

Normative Dimension
(10) Turning new ideas into businesses is an admired career path in this country.

(11) In this country, innovative and creative thinking is viewed as the route to success.

(12) Entrepreneurs are admired in this country.

(13) People in this country tend to greatly admire those who start their own business.
