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Application of Principal Component Analysis on Perceived Barriers to Youth Entrepreneurship

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Abstract: Entrepreneurship is an imperative driving force for innovation in a country. Nevertheless, there is lack of systematic investigation in the area of barriers to entrepreneurship and its effects on the intentions of the youth becoming an entrepreneur. As a result, the primary objective of the study is to analyze perceived barriers to youth entrepreneurship. The study used responses from 186 students of a tertiary institution, who were selected based on convenience sampling method. A 5 point likert scale was used to measure the responses and the data analyzed with descriptive statistics, correlation and principal component analysis. The results indicate that youth perceive lack of capital, lack of skill, lack of support, lack of market opportunities and risk as the main barriers to youth entrepreneurship. Nine (9) factors with Eigenvalues greater than one accounted for 73.35% of the variance explained. The study recommends that, stakeholders precautiously design courses and policies to minimize the perception of entrepreneurship barriers and maximize motivational factors. Entrepreneurship education be designed to enhance skills and knowledge in entrepreneurship and also to reorient students' career choices towards entrepreneurship. Awareness campaign of government support instruments should be done. Policy makers should implement sound economic policies to boost the country's economic environment.

Keywords: Youth, Barriers, Entrepreneurship, Principal Component Analysis, Correlation

1. Introduction

Entrepreneurship, broadly defined as "any attempt at new venture or new business creation, such as self-employment, a new business organization or the expansion of an existing business, by an individual, a team of individuals, or an established business" [1]. It is an old idea and has always been in practice in the communities and societies. Entrepreneurship brings prosperity and social development since it involves the creation of new ventures that provide goods and services to people, creates jobs, enhances the economic growth and development as well as improving political stability and national security of a country [2 - 4] Involving youth in the formal sector through entrepreneurship is a way of gainfully engaging this population group. According to Mkhize [5] since entrepreneurship is a possible solution to the growing problem of youth joblessness, it is necessary to ensure the success of Small and Micro Enterprises (SMEs).

1.1. Youth Entrepreneurship

Creating employment for the growing youth population has been the centre of recent debates in developing countries including Ghana. The household survey data from 2012, puts Ghana's adult population at 34 and 35 percent for age groups 15-24 and 24-35 respectively. These estimates indicate the country's population is young with respect to the adult working age population (defined as ages 15-64).). Uneca & Ecowas [6] argued that young people are a potential resource for growth and social development if gainfully and productively engaged. It can be accepted that youth entrepreneurship plays a vital role in reducing joblessness levels and contributing to economic growth [7], this will in turn reduce crime, poverty, drug addiction, and income inequality. Ghana can then boast of this if there is ability and capacity to productively engage the youths who form 33.8% of the population [8]. One form of engagement would be the encouragement and support for youths' to start their own enterprises.

A young African entrepreneur from Mali, Issah Cheluh, said" The future of Africa's economic development lies with young entrepreneurs". He made this statement while giving a speech at the United Nations first forum on African youth in 2017. Globally, youth unemployment could be attributed to the dearth of "white colour jobs" in the advent of rapid growth and interest in the entrepreneurship and vocational education in Africa today. Hence, the promotion of entrepreneurial and vocational skills acquisition among the youth becomes the best option of reducing youth unemployment. In Issah Cheluh' s speech he confirmed by saying that " Given Africa's demographic dividend, its related unemployment and the ability of current companies to absorb all the job seekers, entrepreneurship becomes a necessity on the African continent. However, the question is: will African youth deliver or disapprove? I believe entrepreneurship could help Africa and African youth deliver" [9].

The high rate of latent entrepreneurship amongst the young makes youth entrepreneurship attractive to the policy makers. However, there are some barriers that prevent aspiring entrepreneurs, including the youth, from starting a business. There is limited research on the perceived barriers to youth entrepreneurship, in spite of the broad consensus about the importance of entrepreneurship and vocational education to youth empowerment and economic development among nations in Africa [10 - 12]. Against this background, an investigation of the perceived barriers to youth entrepreneurship is very vital and this is what the study seeks to achieve.

1.2. Barriers to Entrepreneurship

In general, barriers to entrepreneurship are the "frameable" perceptions in peoples mind concerning starting and managing new businesses. These perceptions become a challenge causing the youth in particular to be confused and distressed. Luthie & Franke [13] stated that barriers to entrepreneurship relate to "precipitating events", moderating the link between entrepreneurial intention and actual efforts to start an enterprise. These barriers are thus, factors hampering entrepreneurship intents and are also restrictions to one's engagement to be an entrepreneur.

An extensive study of literature by Sitaridis & Kitsios, [14] categorized barriers to entrepreneurship into internal barriers and external barriers. The internal barriers are fear of risk, lack of confidence, insufficient entrepreneurial skill and negative attitude towards entrepreneurship. To them, external barriers include poor access to capital, lack of institutional support, resource constraints, market related barriers, time consuming registration procedures, bureaucracy, administrative burden and political future uncertainty, etc.

Martins et. al, [15] considered three types of barriers as regulatory barriers, cultural and social barriers and the economic and financial barriers.

A study empirically done by Kebaili et al [16] in Qatar classified barriers as institutional (financial, market and knowledge barriers) and psychological (attitude towards change, risk avoidance, fear of failure and stress avoidance).

In another study, the barriers to the success of entrepreneurship include, high-interest loan from financial institutions, lack of managerial process and zeal and will to take risks [17].

Studies by other authors highlighted lack of capital, less skills and having less ability to develop and train entrepreneurs as important barriers [18 - 21].

Similarly fear of failure, information asymmetry, lack of developed network, administrative complexities and lack of financial support were concluded as barriers to entrepreneurship [22 - 25].

There are multiple barriers to entrepreneurship in different societies but for this study, it include psychological barriers, family related barriers, institutional and regulatory barriers and financial and market barriers. Operationalized family related barriers as lack of family support and motivation. Psychological barriers as fear of failure, attitude towards work, lack of courage and confidence, and risk avoidance. Institutional and regulatory barriers were conceptualized as cost of registration, economic environment and documentation procedures. Financial barriers were classified as lack of financial support and high cost of securing loan. Lack of networking, lack of know how or abilities, lack of information on customer, suppliers and distribution channels were put under market or knowledge barriers.

The outcome of the study will provide practical information on these barriers as well as to propose possible solutions to the problem

2. Materials and Methodology

2.1. Population and Sample

The study focused on final year students in Accra Technical University. The researcher used the non-probability sampling method (convenience) for the study with a sample size of 200.

The questionnaire mainly made use of Five-point Likert scale with 1 meaning strongly agree to 5 meaning strongly disagree to determine the obstacles to youth entrepreneurship. It was made up 24 statements on barriers to entrepreneurship as obtained in literature. Close-ended questions were used for demographic variables. The research instrument was developed taken into consideration other similar studies such as [26 - 28]. The data analysis was done using descriptive statistics and principal component analysis.

2.2. Methodology

Pishie [29] describe principal component analysis as a multivariate statistical method use to describe variability among observed variables in terms of fewer unobserved variables called factors. Principal component analysis could be used to verify a construct of interest. Principal component analysis has two main purposes. Firstly, it is used for data reduction and secondly for detection of structure (underlying dimensions) in a set of variables. Leech et al [30], point out that the decision about which factor to retain depends on the percentage of the variance accounted for the variable, the absolute variance accounted for by each factor, and whether

the factor can be meaningfully interpreted. Factors with Eigenvalues greater than one are usually retained.

Sample adequacy should be assessed, and two tests can be applied: the Kaiser-Meyer-Olkin (KMO) test and Bartlett's sphericity test. KMO statistic is a proportion of variance among variables that might be common variance: varies from zero to one, in which zero is inadequate, while close to one is adequate.

Bartlett's test compares the observed correlation matrix to the identity matrix (off-diagonal is zero). If they are similar, it will be necessary as many factors as variables, and the analysis is useless. Overall, KMO values above 0.50 and $p < 0.05$ for Bartlett's sphericity test are considered acceptable.

2.3. Principal Component Analysis

Assume the random variables $X_1 \ldots, X_p$ of interest have a certain multivariate distribution with mean vector μ and covariance matrix ∑ which are finite. The rank of ∑ is $r \leq p$, and the q largest characteristic roots

$$\lambda_1 > \cdots \lambda_q$$

of ∑ are all district. From this population a sample of N independent observation vectors has been drawn. The observations can be written as usual N x p data matrix

$$X = \begin{bmatrix} x_{11} & \cdots & x_{1p} \\ \vdots & \ddots & \vdots \\ x_{N1} & \cdots & x_{Np} \end{bmatrix} \quad (1)$$

For the measure of dependence, each x_{ij} is transformed to a standard score

$$Z_{ij} = \frac{x_{ij} - \bar{x}_j}{s_j} \quad (2)$$

2.4. Sample Covariance Matrix

The first principal component of the observation X by the linear transformation

$$z_1 \equiv a_1^T X = \sum_{i=1}^{p} a_{i1} x_i \quad (3)$$

Where the $a_1 = (a_{11}, a_{21} \ldots a_{p1})$ is chosen such that var $[z_1]$ is maximum

Thus, k^{th} PC of the sample by the linear transformation

$$z_k \equiv a_k^T X \quad (4)$$

k=1… p

Where the $a_k = (a_{1k}, a_{2k}, \ldots, a_{pk})$

Is chosen such that var $[z_k]$ is maximum

Subject to cov $[z_k, z_l] = 0$ for $k > l \geq 1$

And to $a_k^T a_k = 1$

To find a_1 note that

$$var[z_1] = \langle z_1^2 \rangle - \langle z_1 \rangle 2 \quad (5)$$

$$= \sum_{i,j=1}^{p} a_{i1} a_{j1} \langle x_i x_j \rangle - \sum_{i,j=1}^{p} a_{i1} a_{j1} \langle x_i \rangle \langle x_j \rangle \quad (6)$$

$$= \sum_{i,j,=1}^{p} a_{i1} a_{j1} S_{ij} \quad (7)$$

Where $S_{ij} \equiv \sigma_{xixj} = \langle x_i x_j \rangle - \langle x_i \rangle \langle x_j \rangle$

$$= a_1^T S_{a1} \quad (8)$$

S is the covariance matrix for the variables x = ($x_1, x_2, \ldots. x_p$)

To find a_1 maximize var$[z_1]$ subject to $a_1^T a_1 = 1$

Let λ be a Lagrange multiplier

Then maximize $a_1^T S_{a1} - \lambda(a_1^T a_1 - 1)$

By differentiating $Sa_1 - \lambda a_1 = 0$

$$\Longrightarrow (S - \lambda I_p) a_1 = 0$$

Therefore a_1 is an eigenvector of S corresponding to eigenvalue $\lambda \equiv \lambda_1$

Maximized var$[z_1] = a_1^T S_{a1} = a_1^T \lambda_1 a_1 = \lambda_1$

So λ_1 is the largest eigenvalue of S.

The first PC z_1 retains the greatest amount of variation in the sample.

In general

$$Y_{ij} = \beta_{i1} X_{1j} + \beta_{i2} X_{2j} + \cdots + \beta_{ip} X_{pj} \quad (9)$$

$$= a_1' x$$

of the responses whose sample variance

$$S_{Y1}^2 = \sum_{i=1}^{p} \sum_{j=i}^{p} a_{i1} a_{j1} s_{ij} \quad (10)$$

$$= a_1' S$$

Where i, j =1, 2,…., p

A transformation of the factor loadings and the resulted transformation of the factors are called factor rotation. It happens in so many cases that all factor loadings obtained from initial loadings by an orthogonal transformation are not easily interpretable. It is therefore a common practice to rotate them in some way to achieve a simpler structure. In fact, it is always desirable to have a pattern of loadings such that each variable is loaded high on a single factor and has small loadings on the remaining factors. This transformation rotates the common factors in m-dimensional space. Moreover, there are various methods of carrying out factor analysis, however in this study factor rotation using VARIMAX method is used.

2.5. Factor Rotation Using VARIMAX Method

The most common method for factor rotation is the VAIMAX procedure, which maintains axes at right angles. This is the method that also minimizes the number of variables with high loadings on a factor.

Let the rotated matrix of factor loadings be denoted by $L^* = [I_{ij}^*]$ and c_i^2 represent the i^{th} communality then, $\widetilde{l_{ij}} = l_{ij}^* / c_i$ is defined as the rotated coefficient in terms of square root communalities. If P is an 'm x m' orthogonal matrix such that $L^* = LP$ and $F^* = P'F$, then the matrix P is chosen to maximize the following:

$$V = \frac{1}{k} \sum_{j=1}^{m} \left[\sum_{i=1}^{k} (l_{ij}^*)^4 - \frac{1}{k} \left(\sum_{i=1}^{k} \tilde{l}_{ij}^{*2} \right)^2 \right] \quad (11)$$

Where maximized value of 'V' means that squares of the loadings are spread out on each variable as much as possible. The interpretations of common factors become simpler by finding groups of very large and very small coefficients in any column of the rotated matrix of factor loadings.

3. Results and Discussions

3.1. Data Analysis

Table 1 summarizes the demographic profile of the respondents. The questionnaires were distributed to 200 students but 186 were valid for analysis. Male respondents were 114 (61.3%) and 72 (38.7%) were females. Majority of the students 72.6% were aged between 20-24 years followed by those in age bracket 25- 29, representing 22.6% of the respondents. Again, majority of respondents (51.10%) were from the faculty of business.

Table 1. *Demographic profile of respondents.*

Variable/Level	Frequency (N= 186)	Percent (%)
Gender		
Male	114	61.3
Female	72	38.7
Age group		
20-24 years	135	72.6
25 – 29 years	42	22.6
30 – 34 years	6	3.2
>34 years	3	1.6
Faculty		
FAS	51	27.4
FOB	95	51.1
FOE	40	21.5

3.2. Item Descriptive and Normality Testing

The responses to the entrepreneur's barriers ranged from strongly agree (1) to disagree (5). To make the interpretation very simple, the following coding system was used. Mean value between (1.00-2.99) indicates agreement, (4.00-5.00) indicates disagreement while between (3.00-3.99) indicates undecided. Table 2 presents the descriptive statistics and the reliability analysis of the items. Descriptive statistics such as the mean, standard deviation, skewness and kurtosis were used to describe the data. The mean ($\bar{x}$) value for the items ranged from 2.081 to 3.29. Based on the result, there is an indication that respondents (students) were in agreement with 23 of the statements out of 26. This shows that almost all the barriers listed were perceived to be important in inhibiting the youth's decision to be self-employed or an entrepreneur. For instance, the estimated mean value for lack of information is 2.194, this is an indication student agreed to the perception that there is lack of information about youth entrepreneurship. It can be said that, the average score for all the items have a similar spread, with difficult bank finance being the most significant factor followed by lack of information.

The internal consistency of measurement items was assessed using Cronbach's alpha. The overall cronbach's alpha for all the items was (α=0.811) which is above the recommended value of 0.70.

Table 2. *Descriptive Statistics.*

Item	$\bar{X}$	SD	Skewness	kurtosis	α	α if Item Deleted
Lack of information	2.194	1.239	0.954	-0.178	0.811	0.805
Lack of skills	3.097	1.224	-0.079	-1.267		0.808
Difficult bank finance	2.081	1.232	0.983	0.005		0.800
Can't write business plan	2.629	1.149	0.310	-0.882		0.804
No family member did it	3.113	1.415	-0.242	-1.315		0.812
Fear of crime	2.613	1.347	0.334	-1.058		0.821
No opportunity in the market	2.903	1.339	-0.114	-1.323		0.813
Future uncertainty	2.855	1.278	0.232	-1.061		0.807
Repaying school loans	2.839	1.308	0.309	-1.103		0.808
Right partner difficulty	2.565	1.250	0.526	-0.706		0.801
Weak economic environment	2.226	1.247	0.918	-0.116		0.793
Lack of funding information	2.242	1.289	1.048	0.075		0.794
Lack of savings	2.339	1.318	0.852	-0.395		0.806
Lack of family and friends support	2.790	1.381	0.314	-1.197		0.800
Lack of collateral	2.500	1.251	0.467	-0.763		0.802
No one helping	2.468	1.339	0.769	-0.657		0.797
Lack of business experience	2.468	1.238	0.586	-0.634		0.804
Fear of risk	2.355	1.438	0.814	-0.758		0.801
No people encouraging	2.548	1.327	0.502	-1.034		0.796
No management and entrepreneurial knowledge	2.806	1.353	0.200	-1.256		0.802
High registration costs	2.371	1.258	0.737	-0.348		0.813
Don't have a good idea	2.935	1.366	0.080	-1.248		0.805
Don't have the right contacts	2.452	1.289	0.656	-0.680		0.805
Not the right time for me, want to do other things first	2.887	1.332	0.127	-1.287		0.807
I am too young	3.290	1.395	-0.355	-1.218		0.809
Involves too much work and effort	2.935	1.436	0.117	-1.382		0.806
maximum	3.29	1.438	1.048	0.075		0.821
Min	2.081	1.149	-0.355	-1.382		0.793

The pair wise correlations were computed to measure the relationship as shown in table 3. All principal component

techniques try to batch subcategories of variables together based on their correlations. Most often than not, by examining the correlation matrix, it helps to spot clusters of high correlations between groups of variables. From the correlation matrix, table 3, there exists positive degree of relationship between majorities of the barrier factors being considered.

Table 3. *Correlation Matrix.*

	LoI	**LoS**	**DBF**	**BP**	**Nfam**	**FoC**	**NoM**	**FU**	**RSL**	**RPD**	**WEE**	**LoFI**
LoI	1.000											
LoS	0.225	1.000										
DBF	0.151	0.245	1.000									
BP	0.362	0.399	0.357	1.000								
Nfam	0.118	0.013	0.117	-0.115	1.000							
FoC	-0.033	-0.136	-0.119	0.043	0.290	1.000						
NoM	0.002	-0.084	0.213	0.008	0.144	0.061	1.000					
FU	0.070	0.030	0.237	-0.004	0.381	0.024	0.221	1.000				
RSL	0.141	0.041	0.100	0.080	0.107	0.104	0.019	0.084	1.000			
RPD	0.129	0.189	0.098	0.343	0.149	0.259	-0.104	0.196	0.257	1.000		
WEE	0.279	0.286	0.351	0.288	0.013	0.043	0.043	0.227	0.163	0.506	1.000	
LoFI	0.288	0.026	0.390	0.051	0.299	-0.040	0.042	0.410	0.276	0.290	0.516	1.000
Lsav	0.130	-0.061	0.205	-0.132	0.155	-0.119	0.065	0.166	0.023	-0.028	0.202	0.395
LoFS	0.235	0.099	0.164	0.064	0.138	-0.203	0.361	0.196	0.172	0.089	0.257	0.315
LoC	0.074	-0.032	0.356	0.154	0.023	0.029	0.147	0.169	0.320	0.351	0.357	0.381
NoH	0.073	0.052	0.315	0.125	0.136	-0.107	0.345	-0.008	0.362	0.075	0.250	0.418
LBEx	0.058	0.078	0.168	0.113	-0.003	-0.076	0.107	0.189	-0.003	0.102	0.228	0.267
FoR	0.218	0.120	0.122	0.012	-0.052	-0.224	0.061	0.153	0.066	0.078	0.320	0.466
NE	0.263	0.098	0.163	0.286	-0.130	-0.017	0.141	0.028	0.231	0.315	0.410	0.228
NMEK	0.218	0.348	0.275	0.301	-0.023	-0.105	0.053	-0.092	0.038	0.124	0.240	0.131
HRC	-0.026	0.061	-0.020	-0.085	0.059	0.047	-0.144	-0.068	0.087	0.136	0.197	0.166
GI	0.269	0.337	0.198	0.350	-0.200	-0.147	-0.048	-0.081	-0.033	0.175	0.365	0.046
RC	0.334	0.169	0.235	0.204	-0.082	-0.134	-0.098	-0.009	0.063	0.063	0.323	0.229
NRT	0.023	-0.084	0.056	0.015	0.346	0.304	0.049	0.318	0.055	0.088	0.025	0.312
TY	-0.099	0.050	0.196	0.222	0.041	-0.087	0.059	0.134	0.053	0.196	0.178	-0.021
TMWE	0.026	0.181	0.123	0.254	0.109	0.004	-0.020	-0.014	0.021	0.395	0.201	0.168

Table 3. *Continued.*

	Lsav	**LoFS**	**LoC**	**NoH**	**LBEx**	**FoR**	**NE**	**NMEK**	**HRC**	**GI**	**RC**	**NRT**	**TY**	**TMWE**
LoI														
LoS														
DBF														
BP														
Nfam														
FoC														
NoM														
FU														
RSL														
RPD														
WEE														
LoFI														
Lsav	1.000													
LoFS	0.400	1.000												
LoC	0.254	0.299	1.000											
NoH	0.429	0.541	0.386	1.000										
LBEx	0.243	0.001	0.058	0.242	1.000									
FoR	0.282	0.112	0.064	0.236	0.495	1.000								
NE	0.323	0.305	0.257	0.351	0.450	0.420	1.000							
NMEK	0.065	0.206	0.000	0.233	0.319	0.230	0.480	1.000						
HRC	0.190	-0.039	-0.109	0.032	0.076	0.216	0.348	0.245	1.000					
GI	0.021	0.114	0.038	0.142	0.280	0.279	0.282	0.250	0.054	1.000				
RC	0.179	0.367	0.457	0.246	0.102	0.089	0.217	0.314	-0.044	0.371	1.000			
NRT	0.125	0.058	0.084	0.168	0.132	0.124	-0.094	0.124	0.074	0.041	0.107	1.000		
TY	-0.090	0.083	0.047	0.110	-0.031	0.144	0.072	0.091	-0.025	0.303	-0.047	0.327	1.000	
TMWE	-0.092	0.134	0.064	0.144	0.017	0.249	0.088	0.112	0.068	0.240	-0.011	0.236	0.566	1.000

3.3. Exploratory Factor Analysis

The Kaiser-Meyer-Olkin measure and Bartlett's test were employed to be sure of the usage of factor analysis (principal component) for the study.

Null Hypothesis: The inter-correlation matrix of the variables is not different from an identity matrix.

Alternative Hypothesis: The inter-correlation matrix of the variables is different from an identity matrix.

Table 4. *Kaiser-Meyer-Olkin Measure of Sampling Adequacy Bartlett's Test of Sphericity.*

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.611
Bartlett's Test of Sphericity	Approx. Chi-Square	577.373
	df	325
	Sig.	0.000

The KMO value of 0.611 that the inter-relationships of the variables are of good precision. The Bartlett's test of sphericity (577.373, df = 325) with an associated p-value of 0.000 indicating that, the correlation matrix is significantly different from an identity matrix. Since the value of KMO exceeds 0.5, using factor separation based on fundamental concepts is allowable.

Varimax rotation is used in the implemented factor analysis to separate the items based on factor load coefficient determining the factor to which each item belongs. The questionnaire was submitted for examination using confirmed factor analysis technique during which items with factor load less than 0.5 (<0.5) were omitted out of the 26 items. Finally 24 items were retained for further analysis.

In order to identify similar movement pattern in each PC, the Eigen values and the associated percentage of variance are considered. The results of the component analysis is shown in table 5, of which nine main components with Eigen values greater than 1 explained 73.35% of the variance. The first component explains about 20.14% of the total variance. The second component explains about 10.4% of the overall variance, etc. It is found that the first component recorded the greatest variance followed by the second component with the remaining components following the same decreasing trend of variance.

Table 5. *Total Variance Explained.*

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	4.835	20.146	20.146	4.835	20.146	20.146	2.44	10.169	10.169
2	2.496	10.399	30.545	2.496	10.399	30.545	2.26	9.423	19.592
3	2.174	9.057	39.602	2.174	9.057	39.602	2.16	9.009	28.602
4	1.74	7.251	46.853	1.74	7.251	46.853	2.12	8.816	37.418
5	1.572	6.55	53.403	1.572	6.55	53.403	2.11	8.799	46.217
6	1.296	5.401	58.804	1.296	5.401	58.804	1.99	8.305	54.522
7	1.254	5.227	64.031	1.254	5.227	64.031	1.56	6.501	61.023
8	1.164	4.851	68.882	1.164	4.851	68.882	1.51	6.273	67.297
9	1.072	4.465	73.347	1.072	4.465	73.347	1.45	6.05	73.347
10	0.826	3.44	76.787						
11	0.746	3.11	79.897						
12	0.687	2.864	82.761						
13	0.644	2.683	85.444						
14	0.565	2.356	87.799						
15	0.462	1.926	89.726						
16	0.455	1.898	91.623						
17	0.414	1.723	93.347						
18	0.325	1.353	94.7						
19	0.316	1.318	96.018						
20	0.257	1.072	97.09						
21	0.22	0.917	98.007						
22	0.191	0.796	98.803						
23	0.151	0.629	99.432						
24	0.136	0.568	100						

Extraction Method: Principal Component Analysis.

Table 6. *Rotated component matrix and communalities.*

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**communalities**
Lack of information	0.44	-0.155	-0.084	-0.206	0.323	0.461	0.031	0.041	-0.058	0.589
Lack of skills	0.335	-0.472	0.104	-0.097	0.088	0.376	0.089	0.041	-0.341	0.63
Can't write business plan	0.417	-0.489	0.26	-0.302	0.08	0.086	0.233	-0.157	0.051	0.667
No family member did it	0.133	0.572	0.382	0.026	0.146	0.327	0.198	0.2	-0.179	0.731
Fear of crime	-0.095	0.225	0.479	0.011	0.436	-0.191	0.433	0.027	0.303	0.795
No opportunity in the market	0.178	0.366	-0.1	-0.199	-0.385	0.012	0.543	-0.355	-0.077	0.791
Future uncertainty	0.287	0.505	0.268	0.023	0.058	0.348	-0.146	-0.397	-0.1	0.723
Right partner difficulty	0.473	-0.095	0.517	-0.056	0.339	-0.355	-0.026	-0.157	-0.164	0.796
Weak economic environment	0.707	-0.092	0.124	-0.032	0.257	-0.154	-0.159	-0.161	-0.147	0.687
Lack of funding information	0.653	0.425	0.027	0.111	0.193	0.083	-0.3	-0.001	-0.076	0.761
Lack of savings	0.438	0.431	-0.405	0.14	0.018	-0.056	-0.11	0.197	-0.054	0.618
Lack of family and friends support	0.539	0.274	-0.254	-0.393	-0.254	0.015	0.115	0.189	-0.275	0.774
Lack of collateral	0.479	0.251	-0.04	-0.459	0.14	-0.412	-0.199	-0.099	0.186	0.779

	1	2	3	4	5	6	7	8	9	communalities
No one helping	0.587	0.287	-0.24	-0.163	-0.31	-0.193	0.19	0.164	0.009	0.707
Lack of business experience	0.472	-0.012	-0.183	0.465	-0.052	0.116	0.097	-0.39	0.362	0.781
Fear of risk	0.558	-0.014	-0.143	0.514	-0.179	0.111	-0.239	-0.185	0.008	0.732
No people encouraging	0.663	-0.169	-0.254	0.235	0.084	-0.3	0.3	-0.127	-0.006	0.791
No management and entrepreneurial knowledge	0.504	-0.335	-0.125	0.166	-0.012	0.15	0.416	0.252	0.09	0.677
High registration costs	0.214	-0.053	-0.028	0.603	0.236	-0.24	0.11	0.405	-0.245	0.763
Don't have a good idea	0.481	-0.524	0.034	-0.018	-0.167	0.122	-0.123	-0.008	0.222	0.615
Don't have the right contacts	0.495	-0.141	-0.258	-0.421	0.161	0.088	-0.211	0.296	0.369	0.811
Not the right time for me	0.256	0.385	0.471	0.145	-0.13	0.226	0.017	0.32	0.477	0.855
I am too young	0.259	-0.141	0.547	0.016	-0.608	-0.103	-0.12	0.056	0.028	0.785
Involves too much work and effort	0.355	-0.179	0.579	0.053	-0.392	-0.153	-0.123	0.163	-0.171	0.744

Extraction Method: Principal Component Analysis.
a. 9 components extracted.

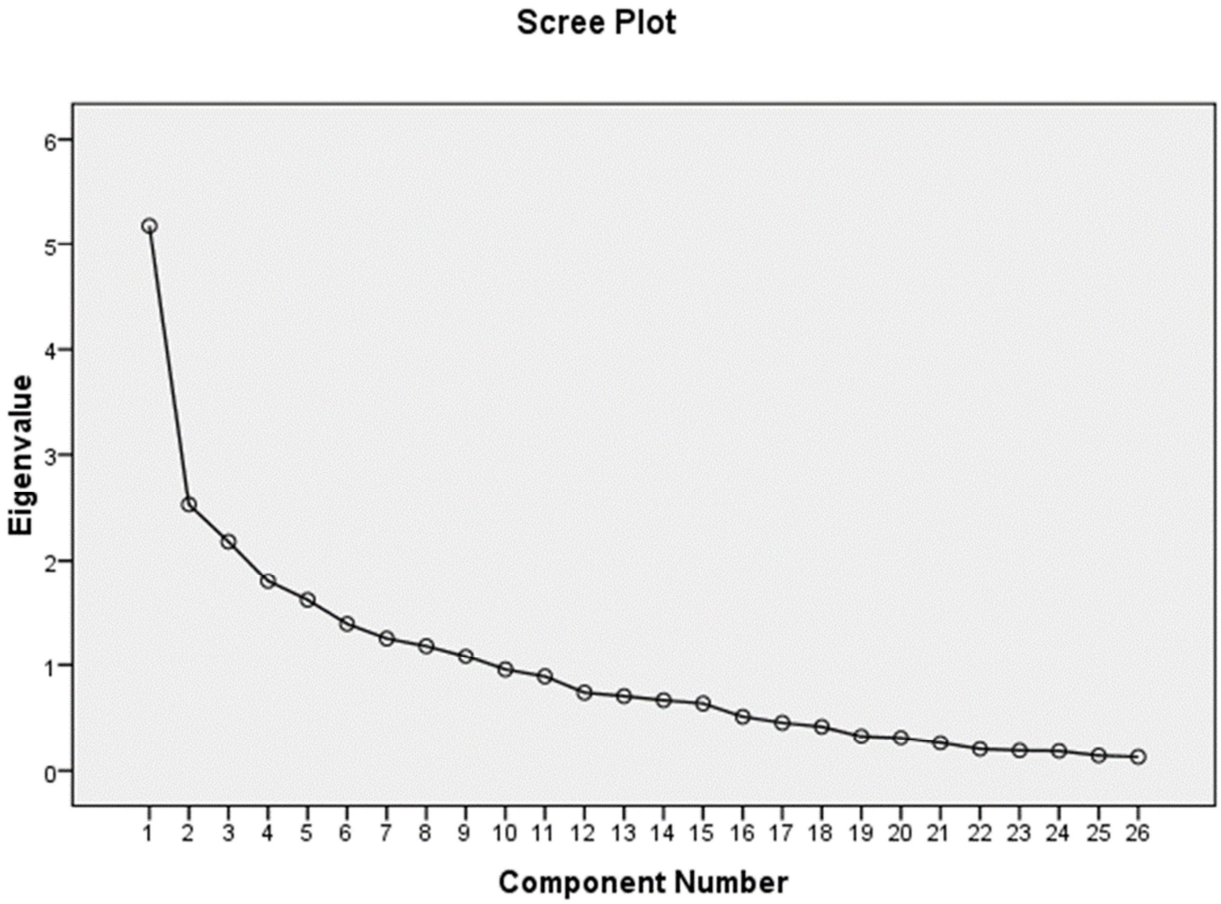

Figure 1. *Screen Plot of Ordered Eigen Value.*

Table 6 reveals component 1 is highly correlated with 11 original variables of perceived barriers to youth entrepreneurship, lack of financial support, family support and motivation. Other studies also assert that lack of financial support hinders youth entrepreneurship, [23, 25]. Component 2 is also correlated with 5 original variables, lack of skills and ideas, which is consistent with studies done by [19, 23]. Whiles component 3 is also strongly correlated with 3 original variables, psychological barriers, this finding is in line with [23]. The remaining 6 components correlated with a variable each. Historically, literature shows that mostly PC1 or only few PCs contain maximum information [31 - 33]. Therefore, the first 7 PCs are significant among the nine constructed PCs as they contain 64.04% variation and the remaining 2 have less than 5% variation. Cattell's scree test requires visual analysis of a graphical representation of eigenvalues for point of inflection and this shown in figure 1.

4. Conclusions and Recommendation

The study empirically investigated perceived barriers to youth entrepreneurship in Ghana. The first seven (7) perceived barriers were found to be significant among the nine constructed PCs and positively correlated with student's perception to youth entrepreneurship. These are lack of supporting systems – lack of financial, technical and family

support and weak economic environment. Another perceived barriers are lack of skills and ideas, uncertainty and lack of market opportunities among others. Thus, results of this study indicate that there are perceived obstacles to youth entrepreneurial in Ghana. This will have a negative impact on youth entrepreneurship if care is not taken. It is recommended that, stakeholders precautiously design courses and policies to minimize the perception of entrepreneurship barriers and maximize motivational factors. Entrepreneurship education be designed to enhance skills and knowledge in entrepreneurship as an initiative to provide basics of such practical business practices and also to reorient students' career choices towards entrepreneurship. Awareness campaign of government support instruments should be done.

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