

Economic Causes of Extremism Intellectual (Thoughts) Views of Graduate Students Using Multivariate Statistical Techniques

Hasan Abdullah Al-Dajah¹

¹ Department of Human Security, College of Strategic Science, Naif Arab University for Security Science, Saudi Arabia

Correspondence: Hasan Abdullah Al-Dajah, Head of Department of Human Security, College of Strategic Science, Naif Arab University for Security Science, Saudi Arabia. E-mail: hasanayed@nauss.edu.sa

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Abstract

The present study investigated the impact of the economic reasons on the intellectual (thoughts) extremism, and the statement of the most important indicators in the economic factor that lead to extremism from the views of graduate students. The study problem based on the following question: What are economic factors leading to the extremism of the intellectual (Thoughts)? Correlation coefficient, Principal component analysis (PCA), varimax (F) rotated factor analysis, and dendrogram cluster analysis (DCA) were assessed for the economic impacts that leads to extremism (Thoughts). Multivariate statistical analysis of the dataset and correlation analysis suggested that the strong positive correlations are commonly associated in the poverty and lack of interest in remote areas for major cities Center. Multivariate statistical analysis such as principal component analysis, varimax rotated factor analysis, and dendrogram cluster analysis allowed the identification of three main factors controlling that lead to extremism from the views of graduate students. The extracted factors are as follows: low living expenses, poverty and substantial deprivation, and unequal opportunities and unemployment associations related to prevalence of corruption phase.

Keywords: multivariate statistical analysis, economic analysis, extremism intellectual (thoughts)

1. Introduction

The economy fluctuations of the most influential in the community changes and of the driving reasons for the waves of extremism intellectual (thoughts) among the people, and that the economic crisis of the international and its reflection and affect poor communities, which increases the gap between the wealthy classes, and poor strata of society (Griffith, Cailloux, & Pfaffenzer, 1998). Extremism reaction for economic reasons, comes an expression of the anger of communities and marginalized groups on reality, and is expected to take advantage of the extremists scientific and technological progress in the present time, ease the transfer of funds and the transfer of ideas and information across their sites to various parts of the ground geographically, by Internet networks and across social networks (Farwell, 2014). Poor economic situation of the leading causes of intellectual (thoughts) deviation, extremism and terrorism at the same time, that is also the religious extremism output for ideological deviation of the most common and dangerous forms of terrorism deadliest and most, and the reasons behind the economic and accumulated successive because the economy of the main variables that exist psychological stability the human higher the per capita income was high psychological and emotional stability stable (Sandbrook, & Romano, 2004). Also, the spread of unemployment in the community, and the lack of employment opportunities, opening doors to intellectual (thoughts) deviation and terrorist and moral crimes (Falk, Kuhn, & Zweimüller, 2011). The economic causes of extremism are plays and important role for all the absence of equal opportunities and widespread unemployment, poverty and the prevalence of corruption and material deprivation and high prices and low wages and inequality and weak management of the investment opportunities and the lack of interest in remote areas of the major cities. However, concept of intellectual (thoughts) extremism represents the production of the individual and the organization, a position contrary to the consensus of scientists' militants and the nation about the specific opinion or an intellectual (thoughts) general pattern has been approved by the nation and brings it. also the concept according to Archbishop Desmond Tutu on a debate in Doha, Qatar defined extremism as „when you do not allow for a different point of view; when you hold your own views as being quite exclusive, when you don't allow for the possibility of difference (Davies,

2008).

According to Dajah (2013), the concept of intellectual (thoughts) security can be identified for the safety and moderate thinking and for the results consistent with the intellectual (thoughts) style of the nation that belongs to the individual, away from extremism and fanaticism. Da'jah (2013) in his theory of intellectual (thoughts) security that address the security of intellectual (thoughts) extremism is based on several factors, including: International environment, regional and national environment, social environment, economic environment, and political environment, and internal environment of an overall social, economic, political and educational policies in the state have a deep impact on the intellectual security(thoughts).

The tendency has been increased to this theory at the end of the nineteenth century, when the socialist doctrine in 1859 (Harris, 1959), Where supporters of this doctrine emphasized to give great importance to the impact of economic factors in the lives of individuals and society among all the faces, as the owners of this doctrine see that crime, in essence, an inevitable result of the exploitation of labor and the layers of the criminal justice applied in these communities are in favor of the capitalist class therefore person economically weak and who sees that there is no social justice in the society and it is unable to ensure that the large family livelihood, he rushes to the crime, believing that it does not commit an error or sin as seen most interested (Alexander,1994). Crimes are only the reactions of economic conditions experienced by individuals and groups as the crime rate increases in the economic downturn and recession periods in periods of rapid economic changes taking place in society, while crime rates go down during the periods of economic recovery and prosperity (Gottfredson, & Hirschi, 1990)(Lewis, 2005). It is the context of the grounds relied upon this theory in its interpretation of the crime that every poor must be a criminal or a crime that should go hand-in-hand with bad economic situation (Reiman, & Leighton, 2015). The impact of poor living conditions may lead to criminality and some behavioral patterns of deviant may consist in impoverished communities that feel their members of hunger and fatigue and deprivation, but not likely to be the secret of this is that the psychological and social circumstances surrounding the person impoverished may work to increase the moment of emotional imbalance and a sense of insecurity to secure the necessary needs, which encourages him to commit the crime(Louw, & Shaw 1997). There are another team of scientists relieve the significant economic factor (Barnes, 1895) .They regard it unlimited important role it have merely a factor to create criminality and appoint it when encountered configuration criminal act of individuals, if plagued by a person only, it is not likely to have this factor impact and demonstrating the validity of the view that people living in miserable However recover the same crime and some of them live in prosperity, nonetheless does not hesitate to resist crime, and that the doctrine of positivism school has been influenced by many researchers(Rafter,1992). Previous studies have been conducted to property crime: Economic factors influence criminal behavior but cannot completely explain the syndrome (Howsen et al. 1987); monopoly and socialism (Harris, 1959); crime and culpability (Alexander, 1994); Studies in Economic Progress (Lewis, 2005); ideology, class, and criminal justice (Reiman and Leighton, 2015). In this paper, we know that no search of economic causes of extremism intellectual (thoughts), through the study of indicators of this factor is made up cumulatively. We do not really understand the relationship between economic factor and extremism intellectual (thoughts). Because of that, we do not know how those economic causes of extremism intellectual (thoughts) affect the extremism. The investigations of the economic reasons leading to the radicalization of the intellectual (thoughts) have not been formerly evaluated in the study area. Therefore, such a study is essential if the Economic causes of extremism intellectual (thoughts) is to be understood quantitatively and qualitatively. The main aims were to (a) demonstrate the impact of the economic reasons on the intellectual (thoughts) extremism, and the statement of the most important indicators in the economic factor that lead to extremism, (b) identify the factors leading the economic reasons leading to the radicalization of the intellectual (thoughts) using multivariate statistical techniques, e.g., principal components analysis (PCA), varimax rotated factor analysis (VRFA) and hierarchical cluster analysis (HCA). The outcomes of the study to providing scientific study, depends on survey information from first sources - EMPIRICAL study based on the survey - to examine this aspect and coverage of scientific and practical dimensions so that we can cover the side lacks national humanitarian libraries, as well as to enable decision makers to develop policies that reduce this phenomenon in the future.

2. Methods and Techniques

Data Preparation and collection Questioner's form was prepared and distributed for 83 Master students at the Faculty of strategic Science, Naief Arab University for Security Science, Riyadh, Saudi Arabia, is shown in attached table (1). Questioner's forms were collected during May of 2015.

Table1. Economic causes of extremism intellectual (Thoughts)

No.	Personal information						
1	Age	25years or less	of 26-30 years	31-40 years	41years	and more	
2	Employment	civilian	military				
3	The income level by SR	10,000 or less	10,001-15,000	15,001-20,000	20,001	SR or more	
4	Years of experience	5 years & less	6-10years	11-15 years	16 years	and over	
5	Social networks used	Facebook	Twitter	WhatsApp	Other		
Questioner's Subject							
No.	economic causes of extremism	The degree of approval					
		Very degree	higher	High degree	Medium	Low degree	Very low degree.
1	The absence of equal opportunities between individuals						
2	Widespread unemployment among young people						
3	The prevalence of corruption in public institutions						
4	Continuing prices raising						
5	Material deprivation						
6	Inequality between individuals						
7	Poverty						
8	Poorly managed investment opportunities						
9	Low wages						
10	Lack of interest in remote areas for major cities Center						

2.1 Multivariate Statistical Analysis

Multivariate statistical analysis Principal component analysis (PCA), varimax rotated factor analysis (VRFA), hierarchical cluster analysis (HCA), and interelemental correlations were conducted by SPSS software (version 16). Methodology and procedures: Multivariate Statistical Techniques (Johnson, & Wichern, 1992), (Jolliffe2002) (Wold, Esbensen, & Geladi1987).

2.1.1 Correlation Coefficient Analysis

Correlation coefficients have been extensively used in defining the interrelationships between variables and have proven to be effective (Liu et al. 2003; Yalcin and Ilhan 2008; Brownlee, 1965). In this paper, the degree of correlation between economic causes is often used to indicate the extremism intellectual (thoughts).

2.1.2 Principal Components Analysis

This statistical method is a factor extraction process used to form uncorrelated linear combinations of the experimental variables (Dunteman, 1989; Dunn, 1993). The first component has maximum variance. Successive components explain progressively smaller portions of the variance and are all uncorrelated (Price et al, 2006). With each other. Principal components analysis is used to obtain the initial factor solution

(Al-Hwaiti et al. 2013).

2.1.3 Varimax Rotated Factor Analysis

Varimax rotated factor analysis tries to classify variables, or factors, that clarify the shape of correlations within a group of experimental variables (Kaiser, 1958; Kaiser, 1959; Reeves and Saadi 1971). It is frequently used in data reduction to identify a minor number of factors that explain most of the variance that is detected in a much larger number of visible variables. In this research, the varimax rotation factor method was used to reduce the number of variables that have high loadings on every factor. This method simplifies the explanation of factors. Factor extraction has been done with a minimum acceptable eigenvalue as 1 (Kaiser 1958; Harman 1960). The eigenvalues and the cumulative percentages of variance linked with each factor were calculated (Al-Hwaiti et al. 2013).

2.1.4 Dendrogram Cluster Analysis (DCA)

DCA is a technique applied to group the data into clusters or classes (Hansen & Jaumard, 1997). The aim is to develop a set of clusters where by the object in the same cluster are similar to each other but different from those in other clusters. Hierarchical clustering is the most common approach, which provides intuitive similarity relationship between any one sample and the entire data set, and is typically illustrated by a dendrogram (tree diagram) (McKenna, 2003; Ibrahim, 2015). The groups are classified by their similar characteristics, which aid to clarify the data better. The current approach can be used to extract related variables and cases. Moreover, in this research hierarchical cluster analysis was performed on the normalized data set by ward method, using Squared Euclidean distance as a measure of similarity (Otto, 1998; Shrestha and Kazama, 2007).

3. Results and Discussions

3.1 General Descriptive

The economic causes of extremism descriptive analysis are listed in table 2 and Figure 1. The economic causes include: (A) The absence of equal opportunities between individuals, (B) Widespread unemployment among young people, (C) The prevalence of corruption in public institutions, (D) Continuing prices raise, (E) Material deprivation, (F) Inequality between individuals, (G) Poverty, (H) Poorly managed investment opportunities, (I) Low wages, and (J) Lack of interest in remote areas for major cities Center. The mean causes value for A, B, C, D, E, F, G, H, I, J are 3.38 ± 1.03 , 3.93 ± 0.88 , 3.48 ± 1.05 , 2.92 ± 1.19 , 3.37 ± 1.02 , 3.15 ± 1.11 , 3.51 ± 1.11 , 2.82 ± 1.28 , 3.17 ± 1.121 , 3.28 ± 1.55 , respectively. These results indicated that the highest value focuses on the Proliferation of unemployment among young people, whereas the lowest value concentrates question poorly management of investment opportunities. It can be concluded that the widespread unemployment among young people showed be considered in the point of view.

Table 2. Descriptive analysis of the economic causes of extremism (Thoughts) (N=71)

	Code	economic causes of extremism	Min.	Max.	Mean	SD
4	A	The absence of equal opportunities between individuals			3.3803	1.03325
1	B	Widespread unemployment among young people			3.9296	0.88356
3	C	The prevalence of corruption in public institutions			3.4789	1.05369
9	D	Continuing prices raising			2.9155	1.19219
5	E	Material deprivation			3.3662	1.01755
8	F	Inequality between individuals			3.1549	1.11673
2	G	Poverty			3.5070	1.10677
10	H	Poorly managed investment opportunities			2.8169	1.27962
7	I	Low wages			3.1690	1.20696
6	J	Lack of interest in remote areas for major cities Center			3.2817	1.55088

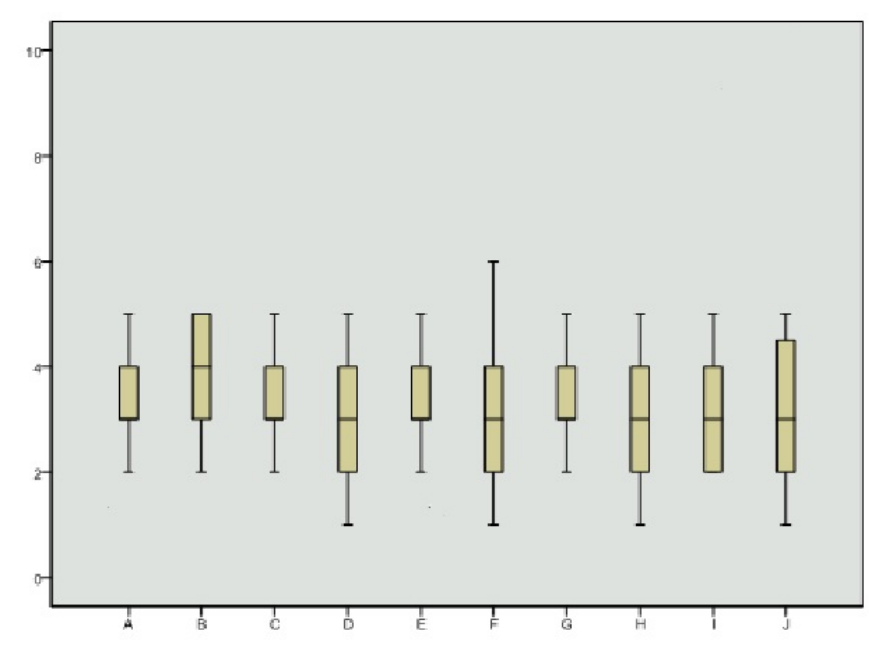


Figure 1. The mean value of the economic causes of extremism (Thoughts)

3.2 The Correlation Coefficients

The correlation coefficients between the analyzed economic cause's values are presented in table 3.

Table 3. Correlation coefficients matrix for Economic causes of extremism (Thoughts)

	A	B	C	D	E	F	G	H	I	J
A	1									
B	.004	1								
C	.010	.043	1							
D	.030	.062	.000	1						
E	.011	.006	.235*	.000	1					
F	.015	.175	.055	.001	.000	1				
G	.142	.063	.490**	.028	.000	.000	1			
H	.063	.229	.006	.000	.008	.000	.006	1		
I	.182	.192*	.064	.000	.000	.000	.000	.000	1	
J	.345**	.346**	.321**	.002	.006	.000	.002	.000	.000	1

Symbols * or - indicate above 95% significance level; ** or - - indicate above 99% significance level

The results reveal that the significant positive correlations (99%) existing between C-G ($r = 0.49$), A-J ($r = 0.35$), B-J ($r = 0.35$), and C-J ($r = 0.32$). This suggests their association with the Poverty and Lack of interest in remote areas for major cities Center. Moreover, the results indicate that the significant positive correlations (95%) existing between C-E ($r = 0.24$) and B-I ($r = 0.19$), indicating an association between the prevalence of corruption in public institutions and material deprivation, and a close relation between the widespread unemployment among young people and low wages.

On the other hand, the insignificant correlations between these causes with other causes. For viewpoint of this paper, correlation among the economic causes of extremism can be classified as follows:

Level I: at 99% significant level

First: the close link between the prevalence of corruption in public institutions and "poverty. Second: A relationship between the spread of unemployment among young people," and the lack of interest in remote areas of the major urban centers. Thirdly, a close correlation between the lack of equal opportunities for individuals" and the lack of interest in remote areas of the major cities' centers that lead to extremism. Fourth: A strong correlation between the prevalence of corruption of public institutions and the lack of interest in remote areas of the major urban centers.

Level II: at 95% significant

First, as can be seen that there is a strong relationship between the words that talk about "the prevalence of corruption in public institutions" and "material deprivation" economic reason for extremism.

Secondly, as it appears that there is a strong correlation between the words that speak of; "The spread of unemployment among young people," and the words that talk about "low wages economic reason for extremism.

3.3 Principal Components Analysis

Principal components analysis is used to get the initial factor solution. To decrease the high dimensionality of the variable space, a PCA was implemented to the available dataset including A, B, C, D, E, F, G, H, I, and J. Three principal components were extracted from the available dataset. They elucidated a total variance of approximately 65.37 % (Table 4). Referring on the loading distribution of the economic causes variables, D, E, F, G, H, I, and J in PCA, we can ratify their connection with the low living expenses phase (PC1). The loading distribution of the economic causes variables, A, B, and C constitute a strong relationship with the prevalence of corruption phase (PC2), whereas the third phase is composed of C and G, suggesting close relationship with the poverty (PC3).

3.4 Varimax Rotated Factor Analysis

From varimax rotated factors, the first three factor components (F1, F2, and F3) ($E > 1$) were selected (Table 4) as they represent about 65 % of the total variance (Table 4) and they presented in Figure 2. The residual components were assumed less significant. Referring on the component loading after the varimax rotation (Table 4), factor 1 accounts for 28 % of the total variance. The high positive loadings of D, F, H, I, and J are clearly due to the association of these causes with low living expenses phase. Factor 2 clarifies 20 % of the total variance. This factor includes positive loadings of E and G. This is most likely due to the association of the two causes with Poverty and Substantial deprivation. Factor 3 clarifies 17 % of the total variance. The positive loadings for A, B, and C, reflect unequal opportunities and unemployment associations related to prevalence of corruption phase.

Table 4. Loading of the components obtained from principal component analysis and Varimax rotated factors (N= 71)

	Principle component			Varimax rotated Factors			Communality
	PC1	PC2	PC3	F1	F2	F3	
A	.316	.695	-.051	.052	.088	.759	.586
B	.294	.618	-.328	-.103	.319	.681	.576
C	.356	.513	.560	.473	-.361	.590	.703
D	.684	.194	.261	.640	.118	.388	.574
E	.727	.102	-.465	.284	.756	.320	.755
F	.733	-.093	-.018	.590	.426	.132	.547
G	.648	-.143	.536	.242	.816	.063	.728
H	.694	-.080	.395	.790	.062	.128	.644
I	.778	-.364	.022	.713	.465	-.114	.738
J	.678	-.430	.211	.757	.267	-.209	.688
% of variance	38.112	15.286	11.974	28.397	19.632	17.343	
% Cumulative	38.112	53.398	65.372	28.397	48.029	65.372	

Symbols * or - indicate above 95% significance level; ** or - - indicate above 99% significance level 198-0.302
 =* & 0.303 and above = **

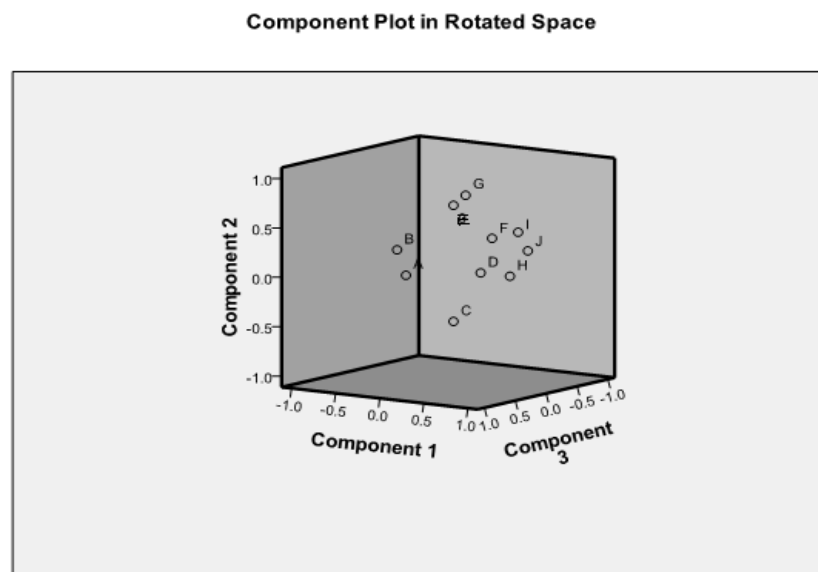


Figure 2. Varimax rotated factor analysis of economic causes of extremism (Thoughts)

Dendrogram cluster analysis

In order to prove the existence of elemental groupings shown by varimax factor analysis, dendrogram cluster analysis was applied and is presented in Fig. 3. The achieved results categorized into three main groups. Group one is comparable to that contained in F 2 (Poverty and Substantial deprivation) for the same causes embraces E, F, and G. The second group includes D, F, H, I, and J. It corresponds to the group of causes embraced in F1 (low living expenses phase). The third group includes A, B, and C, which is similar to that adopted in F3. This result agrees with the principal component analysis result PC2. This could indicate also that the guiding factors of reflect unequal opportunities and unemployment associations related to prevalence of corruption phase.

Rescaled Distance Cluster Combine

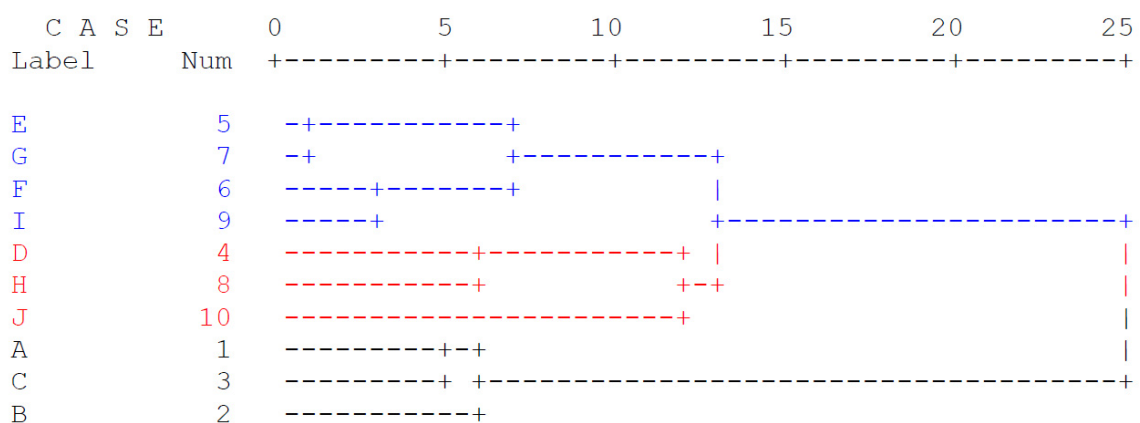


Figure 3. Hierarchical clustering results (dendrogram) of the measured causes (Ward's method) using Euclidean distance as a measure of similarity

4. Conclusions

This paper presents a dataset of the economic causes of extremism from the views of graduate students. The statistical treatment of the data displayed that the central

causes value for A, B, C, D, E, F, G, H, I, J are 3.38 ± 1.03 , 3.93 ± 0.88 , 3.48 ± 1.05 , 2.92 ± 1.19 , 3.37 ± 1.02 , 3.15 ± 1.11 , 3.51 ± 1.11 , 2.82 ± 1.28 , 3.17 ± 1.121 , 3.28 ± 1.55 , respectively. These results indicated that the highest value focuses on the proliferation of unemployment among young people, whereas the lowest value concentrates question poorly management of investment opportunities. Multivariate statistical analysis of the dataset and correlation analysis recommended that C-G ($r = 0.49$), A- J ($r = 0.35$), B- J ($r = 0.35$), and C- J ($r = 0.32$) are commonly associated in the poverty and lack of interest in remote areas for major cities Center. Other applied methods such as principal component analysis, varimax rotated factor analysis, and hierarchical cluster analysis) used in data treatment characterize three phenomena:

low living expenses, poverty and substantial deprivation, and unequal opportunities and unemployment associations related to prevalence of corruption phase.

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