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Harkat, Tahar and Driouchi, Ahmed and Achehboune, Amale

IEAPS, Al Akhawayn University, Ifrane, Morocco

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Generational Gap and Youth in Arab countries:

By: Tahar Harkat, Ahmed Driouchi & Amale Achehboune, IEAPS, Al Akhawayn University, Ifrane, Morocco

Abstract:

The current research focuses on the analysis of attributes associated to generations in Arab countries. This is to disclose the existing differences and similarities within these existing generations and among a set of characteristics related to values, work attributes, and perception of macroeconomic threats. Findings reveal differences in the work attributes and similarities in values. With regards to the perception of macroeconomic threats, differences also exist between GCC and non-GCC countries. Current analyses investigate for the relationships between education, ICTs, unemployment, and political stability within Arab economies, and results indicate significant relationships between these variables and also a strong correlation between unemployment and the increase of political instability. The generational differences in Arab countries need to be monitored and enhanced in order to understand the different determinants of choices and preferences of Arab youth nowadays.

I.   Introduction

Recent investigations show increasingly the importance of studies on generations. This includes generational mobility through income and education (Driouchi, Gamar, Boboc, Achehboune, 2016).

This leads to questioning the dynamics of generations with emphasis on the youngest segments of the population as youth, is a source of the labor force and of knowledge in any economy and requires attention with the recent literature placing the newer generations at the center of the on-going economic, social and political changes. More recent contributions reflect the importance of youth as sources and engines of development (European Commission, 2012). The most cited descriptions relate mainly youth to the category of called "Millenials or generation Y". They all consider Generation Y in all countries and mainly in Arab economies, as different from the previous generations in term of skills, motivations, and goals (Schofield & Honoré, 2015).

Descriptions related to young generations in Arab countries indicate that this latter segment appears to be more socially conscious, flexible, and optimistic. In addition, studies reveal that attributes related to work indicate significant differences among existing generations in Arab economies. Generation Y is described as more objectively focused, collaborative, confident, assertive and accustomed to supervision. In addition, they are said to be open minded, progressive, and multi-tasking. But they are said to be less prepared for difficult situations compared to older generations (Olson, Brescher, 2011; Schofield & Honoré, 2015, Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985; Putnam, 2000; Twenge, 2006; Trzesniewski & Donnellan, 2009; Twenge, and Campbell, 2008).

The youngest generations appear to be more exposed to information and communication technologies as 77% of the youth use Internet (United Nations, 2012), and thus, they tend to share similar attributes as other generations from different parts of the world. In order to understand deeply the attributes, traits, and predictions of the youth within these economies, many surveys are made to assess the differences between generations. Among these surveys, there is the Arab Youth Survey initiated in 2008 (Jhon, 2016).

In the MENA region, after the second half of the 20th century, demographic changes indicate an increasing number of young people (International Year of Youth, 2011). A large youth cohort in Arab countries is an asset to the Arab economies, but a high rate of unemployment is prevailing as response to a shortage in jobs. Unemployment attain 25.2% for males and 47.5% for females with ages between 15 and 24 in the Arab region (Worldbank, 2016). Given these unpromising levels of unemployment as well as low levels and quality of education, the youngest segments of the population are subject to knowledge and skill obsolescence that have further repercussions on society and the economy (Driouchi, 2014;World Bank, 2010; Mourad, 2009; Jelili, 2007).

To understand the generational differences of Arab youth, different hypotheses need to be investigated in relation to the changes of attributes and values between generations. These differences include work attributes, values and moral, and the perception of different threats related to macroeconomic variables. The questions addressed include the determinants that influence the directions of preferences and habits among youth nowadays in addition to the likelihood of links between globalization, the development of ICTs and the new skills of the newer generations.

The current paper deals with generational changes in the Arab world. It starts with a literature review that is followed by the empirical framework used for testing series of hypotheses related to comparisons of younger and new generations. The attained results are then introduced and discussed.

II. Literature review:

Research on recent generations has been expanding to analyze the different determinants, attributes and characteristics associated with the decisions, preferences and prediction of behavior among the youth.

Kingsley Davis first discussed the rapid social change in 1940, which led to massive research in the generation gap. Studies show the correlation between generations that is mainly explained by the manners parents treat their children (Falk & Falk, 2005). Gallup (2009) analyzed the differences in moral values, religion, and

politics between the young generation and their elder in Pakistan. Findings reveal that within this country, only a minority that was not influenced by the previous generation's decisions. Another research conducted by Perveen, Usman, and Aftab (2013) explains the relationship between the authoritarian behavior of parents and the self-esteem of their children as it explains the link between the type of family and communication skills. A model was developed and tested on China related to generational differences (Sun and Wang, 2010). Analyses indicate the significance of transition from traditional to modern values as well as the different factors that affect these differences. Findings showcase a significant gap between generations as generation Y already shifted to modern values that encompass different traits such as individualism and self-development.

Compared to older generations, Gen Y is technologically wise, sophisticated, and are the first generation to be ethnically diverse as this generation is subject to the expansion of ICTs such as Internet, TV channels, and what not. The ICTs also shaped this generation to be flexible and be less-brand loyal (WJSchroer, 2012).

With regards to the work attributes, the assessments of different characteristics in the workplace reveals that the Millennials in Arab economies overload scores of work are more positive than other generations (Pitt-Catsouphes, Matz-Costa & Besen, 2009; Reeves & Oh, 2006). However, observations show the tendency of using more effective strategic management and more efficient coalition of the space resources with different requirement of work styles and businesses (O'Neil, 2010). Furthermore, This young generation signals new characteristics such as adapting to cultures within different companies and different environments (Guthrie, 2009).

These emerging traits in workplaces resulted in the raise of extrinsic values within Millennials as Arab youth nowadays become more money oriented, and indicates a slight decline in the concern for others (Twenge, Campbell & Freeman, 2012). Other studies related to work attributes behavior and workplace values illustrate significant generational differences and support the increase in job mobility and overtime work (Becton, Walker, and Jones-Farmer, 2014; Parry, and Urwin, 2011; Smola, and Sutton, 2002). In addition, Millennials have more realistic expectations about aspects of jobs, but seek rapid advancement (Ng, Schweitzer, & Lyons, 2010).

Studies on work values among generations were of prime interest in order to predict and promote job satisfaction (Dawis, 2005; Super et al., 1957; Dawis & Lofquist, 1984; Dawis, 2002; Rounds, 1990; Kalleberg & Stark, 1993; Young, 1984; Zytowski, 1994; Swenson & Herche, 1994; Hansen & Leuty, 2011) as they are related to work performance and career choices.

Besides the values and work attributes, Arab youth nowadays face many challenges associated to macroeconomic threats. Recently, the long periods of unemployment led to insecurity within Arab economies and political instability. Azeng and Yogo (2013) analyzed the relationship between unemployment within this latter segment and political instability in developing countries. Findings reveal that countries with high unemployment rate, high socioeconomic inequalities, and high corruption are subject to national insecurity and political instability. This was the case for Egypt, Tunisia, Algeria, Jordan, as well as many other Arab countries (Ghafar ,2016 & Ottaway and Hamzawy, 2011). Quintelier (2007) developed a model in order to assess the political differences between old and new generations. Findings indicate lower voting participation for the youth. Still, the use innovative newer forms of political participation politically involve young individuals. Other models assess the involvement in politics within the youth and also account for the implications of information and technology use (Shelley, Thrane & Shulman, 2004).

One of the prime reasons that explain the inefficiency in addressing different social and economic growing challenges is explained by the incompetency of the traditional development approaches that should be replaced by new innovative approaches (UNDP, 2014).

III. Methods of investigation

The difference socioeconomic events shape each generation differently. Booz initially conducted a survey on the Arab population (Shediac, Shehadi, Bhargava, Sammam, 2013) in order to address the existing differences between generations. The survey questioned nearly 3000 Arabs from different countries: Egypt, Jordan, Kuwait, Qatar, Saudi Arabia, United Arab Emirates. Additional responses covered other countries that are Algeria (n=170), Lebanon (n=148), Libya (n=73), Morocco (n=163), and Syria (n=95). The survey is divided into three main age categories that defines 3 generations and accounts for the Arab National Generation (ANG) –people

from 49 to 65, the Arab Regional Generation (ARG) –people from 36 to 48, and the Arab Digital generation (ADG) –people from 15 to 35. The survey gathered responses based on the opinion of a generation on the others.

The data of the survey related to many sets of variables that defines the attribute of each generation. Among these data, the current research uses the ones related to work attributes, values, and the perception of the macroeconomic threats for the generations cited above. These latter sets of variables are gathered throughout series of questions, face-to-face interviews, and focus groups and helps visualizing the differences between generations. The existing limitation remains in the statistical differences between generations and is targeted in the current research.

With regards to the first set of data –work attributes, it concerns the attributes related to younger generations, to older generations, and female role as an economic player. These work attribute variables account for taking initiative, flexibility, team spirit, willingness to teach, controlling, leading by example, punctuality, and respectfulness while for the variables related to females as economic players in Arab economies they account for self-usefulness, usage of education, affording modern luxuries, contributing financially to households, securing the children future, positive contribution for the economy, and freedom to meet new people. Concerning the values associated to each generation, the variables account for dignity, generosity, hospitality, affection, honesty, commitment, achievement, creativity, adventure, and religiousness. For the last set of data –perception of macroeconomic threats, the variables included threats related to corruption, high level of unemployment, poor quality of healthcare, lack of freedom of speech, lack of infrastructure, poor quality of education, high crime rate, political instability, high cost of living, poverty, high cost of healthcare, and high cost of education.

The observations made on this survey indicate that in certain topics such as the values throughout generations attributes are almost the same while in work related values attributes indicate some differences. For this, the data was presented for all Arab countries, and for GCC and non-GCC countries separately and was for the period of the year 2013. The current paper used the survey discussed above to address the significant similarities, differences, and the dependency between the youngest segments compared to the other generations related to variables discussed above.

The responses provided from this survey are tabulated in contingency tables so as to have cross-classified data. The contingency tables are presented in Appendix A. Thus, the attributes differences between generations are analyzed throughout the ANOVA analysis.

The ANOVA, or analysis of variance, is used as the current analysis follows within the case of quantitative outcome with a categorical explanatory variable, which is the pool of generations. This latter treatment is divided into ADG, ARG, and ANG. This descriptive analysis will test multiple hypotheses to determine whether if there are any statistically significant differences of the means of the responses between the generations and for each group of attributes of the groups. Thus, the analysis follows different sets of hypothesis in which the null and alternative one for each group are given such as:

$$H_0: \mu_{ADG_i} = \mu_{ARG_i} = \mu_{ANG_i}$$

$$H_A: \mu_{ADG_i} \neq \mu_{ARG_i} \neq \mu_{ANG_i}$$

Where:

i: is the group of attributes.

The model results in an F-statistic that is the ratio of by the mean squares within and among groups that are calculated such as: $MS_{between} = SS_{between}/df_{between}$, and $MS_{within} = SS_{within}/df_{within}$

Where:

Df$_{within}$ = number of groups minus one;

Df$_{among}$ = number of observations minus number of groups;

SS$_{within}$=$\sum_{i=1}^{K} SS_i$, or the sum of variances, σ^2, for individual groups;

SS$_{among}$=$\sum_{i=1}^{K} n_i(\bar{Y} - \bar{\bar{Y}})^2$, or the sum of the N squared between group deviations.

The F-statistic is either compared to its critical F-value or written in terms of p-value in order to make a decision about the rejection or the non-rejection of the null hypothesis.

The different hypotheses to be tested under this section are presented in the following table:

Table 1: Null and Alternative hypotheses for statistical differences in attributes for Arab countries

Hypotheses tested	Null and Alternative hypotheses
Hypothesis 1	H_0: The work attributes associated with younger generation are the same as the other generations.
	H_1: The work attributes associated with younger generation differs from other generations.
Hypothesis 2	H_0: The work attributes associated with older generation are the same as the other generations.
	H_1: The work attributes associated with older generation differs from the attributes of the youngest segment generations.
Hypothesis 3	H_0: The female recognition as a national economic player is perceived in the same manner by all generations.
	H_1: The female recognition view as a national economic player is different for the new generation.
Hypothesis 4	H_0: The values of generations did not change over the time in GCC countries.
	H_1: At least one generation has different values than the others in GCC countries.
Hypothesis 5	H_0: The values of generations did not change over the time in Non-GCC countries.
	H_1: At least one generation has different values than the others in Non-GCC countries.
Hypothesis 6	H_0: The perception of macroeconomic threats is the same for all generations in GCC countries (part1).
	H_1: The perception of macroeconomic threats is not the same for all generations in GCC countries (part1).
Hypothesis 7	H_0: The perception of macroeconomic threats is the same for all generations in Non-GCC countries (part1).
	H_1: The perception of macroeconomic threats is not the same for all generations in Non-GCC countries (part1).
Hypothesis 8	H_0: The perception of macroeconomic threats is the same for ADG in GCC and Non-GCC countries (part1).
	H_1: The perception of macroeconomic threats is not the same for ADG in GCC and Non-GCC countries (part1).
Hypothesis 9	H_0: The perception of macroeconomic threats is the same for ARG in GCC and Non-GCC countries (part1).
	H_1: The perception of macroeconomic threats is not the same for ARG in GCC and Non-GCC countries (part1).
Hypothesis 10	H_0: The perception of macroeconomic threats is the same for ANG in GCC and Non-GCC countries (part1).
	H_1: The perception of macroeconomic threats is not the same for ANG in GCC and Non-GCC countries (part1).

Hypothesis 11	H_0: The perception of macroeconomic threats is the same for all generations in GCC countries (part 2).
	H_1: The perception of macroeconomic threats is not the same for all generations in GCC countries (part2).
Hypothesis 12	H_0: The perception of macroeconomic threats is the same for all generations in Non-GCC countries (part 2).
	H_1: The perception of macroeconomic threats is not the same for all generations in Non-GCC countries (part 2).
Hypothesis 13	H_0: The perception of macroeconomic threats is the same for ADG in GCC and Non-GCC countries (part 2).
	H_1: The perception of macroeconomic threats is not the same for ADG in GCC and Non-GCC countries (part 2).
Hypothesis 14	H_0: The perception of macroeconomic threats is the same for ARG in GCC and Non-GCC countries (part 2).
	H_1: The perception of macroeconomic threats is not the same for ARG in GCC and Non-GCC countries (part 2).
Hypothesis 15	H_0: The perception of macroeconomic threats is the same for ANG in GCC and Non-GCC countries (part 2).
	H_1: The perception of macroeconomic threats is not the same for ANG in GCC and Non-GCC countries (part 2).

In order to assess the dependency between the attributes and generations, the log-linear analysis is used. The Log-linear analysis gives for each set of contingency tables the 3-way interaction between all the given elements that are all generations, each generation, and attributes, meaning that it tests for the dependency of these latter elements. In addition to that, the analysis results in the 2-way interactions, or relationship between each two elements such as between all generations and the attributes, between all generations, and each generation, and between each generation and the attributes.

This test follows the same distribution as Pearson Chi-square, but allows analyzing multiple dependency relationships using multiple layers of the different contingency tables. The test assumes multiplicative relationships given as:

$$n_{ij} = N * \alpha_i * \beta_j * \alpha\beta_{ij}$$

Where:

N: is the number of observation;

α_i: is the effect of variable A at level i, or $\alpha_i = {nA_i}/{N}$;

β_i: is the effect of variable B at level j, or $\beta_j = {nB_j}/{N}$;

$\alpha\beta_{ij}$: is the interaction between A$_i$ and B$_j$, or $\alpha\beta_{ij} = {n_{ij}/nA_i}/{nB_j * N}$

As previous research indicate a correlation between the young population and the political stability, similar analysis is conducted for Arab economies. The analysis will assess this latter relationship by using ICTs, educational and macroeconomic variables of youth in Arab economies. The countries under this study are: Algeria, Egypt, Jordan, Kuwait, Lebanon, Morocco, Qatar, Syria, Tunisia, and United Arab Emirates.

Lucifora and Moriconi (2012) developed a model to analyze this issue, where findings show a significant negative correlation between the political turnover and the political polarization, which are measures of political stability, and the unemployment rates for 21 OECD countries of the period between 1985 and 2006.

The relationship between political stability and unemployment, political stability and ICTs variables, and political instability and education among the youth in Arab countries, the data used consists of the political stability index (PSI) and the unemployment within young individuals between the age of 15 and 24 (Un) and ICTs within households and the percentage rate of ICTs usage within organizations. These PSI and UN data are collected from the World Bank of the period between 1996 and 2015 while the ICTs variables are collected from the Global Innovation Index (Cornell University, INSEAD, & WIPO, 2011, 2012, 2013, and 2014) for the years: 2011, 2012, 2013, and 2014.

In order to analyze the links between the above variables within Arab economies, the panels least square method is used. It is also called the longitudinal or cross sectional time series data. This method is an alternative to simple regression model as it gives more optimal results. The panels least square method enables to observe the behavior of all the Arab countries as pooled across time by the use of multi-dimensional data frequency of time. In addition to that, the method controls omitted variables and better reflect the changes within the subjects over time.

Thus, the models that will assess the links between general education and ICTs variables, Unemployment and ICTs variables, and Unemployment and Political Stability are given as:

$$GE_{it} = \beta_0 + X1_{it}\beta_{1T} + X2_{it}\beta_{2T} + \varepsilon_{it}$$

Where:
Un: is the independent variable, General Education;
X1: is the "ICT access" variable;
X2: is the "ICT and organization" variable.

$$Un_{it} = \beta_0 + X1_{it}\beta_{1T} + X2_{it}\beta_{2T} + \varepsilon_{it}$$

Where:
Un: is the independent variable, unemployment;
X1: is the "ICT access" variable;
X2: is the "ICT and organization" variable.

$$Un_{it} = \beta_0 + PSI_{it}\beta_T + \varepsilon_{it}$$

Where:
Un: is the independent variable, unemployment;
PSI: is the explanatory variable, Political Stability Index;
ε: is the standard error.

The causality between the political stability and the unemployment within Arab countries is assessed throughout the Granger causality test. The test enables prediction the causality between the variables in a sense that if x causes y, if x is able to increase the accurateness of the prediction and forecast of y. Thus the Granger-cause will enable understanding whether if the unemployment causes the political instability or vise versa.

The two equations for testing for this latter relationship are given as:

$$Un_t = \alpha + \sum_{i=1}^{m} \beta_i Un_{t-i} + \sum_{j=1}^{n} \tau_j PS_{t-j} + \mu_t$$

$$PS_t = \theta + \sum_{i=1}^{p} \phi_i PS_{t-i} + \sum_{j=1}^{q} \psi_j Un_{t-j} + \eta_t$$

The unidirectional Granger-causality from Un to PS means that the Un variable increases the prediction of PS but not vice versa and is presented as:

$\sum_{j=1}^{n} \tau_j \neq 0$, and $\sum_{j=1}^{q} \psi_j = 0$

The unidirectional Granger-causality from PS to Un means that the PS variable increases the prediction of Un but not vice versa and is presented as:

$$\sum_{j=1}^{n} \tau_j \neq 0, \text{ and } \sum_{j=1}^{q} \psi_j = 0$$

The bidirectional Granger-causality between PS to Un means that both the PS variable increases the prediction of Un and vice versa and is presented as:

$$\sum_{j=1}^{n} \tau_j \neq 0, \text{ and } \sum_{j=1}^{q} \psi_j \neq 0$$

The independence between PS to Un means that there is no Granger causality between the two variables and is presented as:

$$\sum_{j=1}^{n} \tau_j = 0, \text{ and } \sum_{j=1}^{q} \psi_j = 0$$

A correlation graph concludes the analysis and is represented in the discussion and conclusion section. The correlation analysis illustrated the different relationships between the general education, ICTs usage, ICTs within organizations, unemployment, and political stability.

IV. Results:

The results are presented as to test for the differences between the attributes of the young generation in comparison with older generations. These latter relationships are tested through a series of hypotheses presented in Table 1 (under the methods of investigation section), and are divided into three main categories that are work attributes, values, and perception of macroeconomic threats.

The analysis associated with work attributes related to the young generation resulted in an f value of 12.46 that corresponds to a p value of 0.007. Thus, there is enough evidence to say that the attributes associated to younger generations are different from those of older ones. The different ranking of the means related to the attributes of ADG, 54.67, is relatively higher than the ones of ARG and ANG that have the values of 45.67 and 34.33, respectively (Table B1). This is also the case for the attributes related to the old generation, meaning that the work attributes related to older generations (ANG & ARG) are different from those of ADG. This latter hypothesis (hypothesis 2) indicates a low p-value of 0.016, which is lower than the significance level ($\alpha = 5\%$). With regards to these means corresponding to these latter attributes, ANG indicate the highest value followed by ARG, and then ADG

(Table B2). In addition to that, within generations in Arab countries, the perception of the economic contribution of females remains the same with a p-value of 0.854, which provides no evidence to reject hypothesis 3 (Table B3).

In Arab economies, values such as commitment and honesty are the same for all generation and for both GCC and non-GCC countries. This is confirmed by the F-statistic of hypothesis 5 that equals to 1.69, which is less than the F-critical 3.35.

The problems that threat the youths nowadays are mainly corruption, high unemployment rates, low quality of healthcare, low quality of education, and political instability. These issues are the same as the ones that were facing older generations and hence no statistical differences between generations are found in both GCC and non-GCC countries. The corresponding hypotheses related to the perception of macroeconomic threats are hypothesis 6 and 11 for GCC countries and hypothesis 7 and 12 for non-GCC countries, and have p-values of 0.849, 0.964, 0.51, and 0.909, respectively.

But while comparing among each generation of GCC and non-GCC countries, the differences of the macroeconomic threats become significant. The corresponding F-statistic while comparing the means for each generation between GCC and non-GCC countries are 0.000 and 0.003 for ADG, 0.000 and 0.003 for ANG, and 1.26E-06 and 0.004 for ARG. The analysis and the means ranking indicate that generations in non-GCC countries have higher fears from changes in macroeconomic variables than the generations of in GCC countries such as the fears from the high cost of living, poverty, high cost of health care, and increasing costs of education (Table B8, B9, B10, B13, B14, B15).

Table 2: ANOVA analysis of the hypotheses related to work attributes, values, and perception of macroeconomic threats

Hypotheses tested	F-statistic	F-critical	P-value
Hypothesis 1	12.46	5.14	0.007
Hypothesis 2	5.95	3.89	0.016
Hypothesis 3	0.16	3.55	0.854
Hypothesis 4	1.64	3.35	0.213
Hypothesis 5	1.69	3.35	0.203
Hypothesis 6	0.17	3.47	0.849
Hypothesis 7	0.69	3.47	0.51

Hypothesis 8	32.69	4.6	0
Hypothesis 9	33.03	4.6	0
Hypothesis 10	64.88	4.6	1.26E-06
Hypothesis 11	0.04	4.26	0.964
Hypothesis 12	0.09	4.26	0.909
Hypothesis 13	21.89	5.99	0.003
Hypothesis 14	22.17	5.99	0.003
Hypothesis 15	21.45	5.99	0.004

The log-linear analyses indicate that work attributes are dependent to each individual generation, meaning that each generation has unique work attributes. This is shown from the resulted p-values for the interactions between the attributes and each generation that accounts for 0.001 as well as between each generation and all generations that accounts for 0.000 (Table 3). With regards to macroeconomic threats related to the high cost of living, poverty, high cost of healthcare, and high cost of education, the analysis indicate that generations in GCC countries are independent from those of the non-GCC countries since the p-value of the interaction between all generations and each generation equals to 0.001.

Concerning the values as well as macroeconomic threats related to corruption, high rates of unemployment, poor quality of healthcare, lack of freedom of speech, lack of infrastructure, poor quality of education, high crime rate, and high political instability, analyses indicate a strong relationship between the youth view and their elders, meaning that the youngest segment shares the same attributes as old generations as the lowest p-value equals to 0.455 (Table 3).

Table 3: Log-linear analysis for work attributes, values, and the perception for macroeconomic threats in Arab countries and between GCC and non-GCC countries

	Work attributes between generations in Arab countries	Values between generations in GCC and non-GCC countries	Macroeconomic threats between generations in GCC and Non-GCC countries (part 1)	Macroeconomic threats between generations in GCC and Non-GCC countries (part 2)
Work attributes	p-value	p-value	p-value	p-value
All-generations Attributes individual-generation	0.000	0.925	1.000	0.370

All-generations Attributes	0.849	0.620	0.998	0.999
All-generations individual-generation	0.000	0.455	0.660	0.001
Attributes individual-generation	0.001	0.990	0.810	0.951

With regards to the relationships between issues in macroeconomic variable, lack of education, and lack of ICTs based skills, the following section introduces the results of the panels least square method of the models.

Table 4 introduces the results of the relationship between the general education and ICTs variables. Findings indicate that the enrolment in general education is significantly increasing. This latter variable shows a significant relationship with both the ICT access with a positive coefficient of 0.504 and ICTs within organizations with a slight but negative coefficient that accounts for -1.92E-06. The results can be interpreted such as the skills resulted from the general education affects negatively the ICTs introduction within organizations.

Table 4: Time series and cross comparison analysis of general education and ICTs in Arab countries.

Dependent variable: General Education
Method: Panel Least Squares
R-squared: 0.576

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	25.079	6.779	3.699	0.001
ICTaccess	0.504	0.111	4.558	0.000
ICTandOrganizations	-1.92E-06	9.24E-07	-2.074	0.0467

The unemployment rate in Arab economies also has a significant relationship with both ICT access and ICTs within organizations, with negative and positive coefficients respectively. This means that an increase by one unit in unemployment results in 0.092 increase in ICTs within organization and 0.323 decrease in ICTs access and vise versa. This means that there is a lack of skills related to ICTs required by organizations. These results are presented in Table 5.

Table 5: Time series and cross comparison analysis of unemployment and ICTs variables in Arab countries.

Dependent variable: Unemployment

Method: Panel Least Squares
R-squared: 0.649

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	19.178	1.689	11.349	0.000
ICTaccess	-0.323	0.044	-7.283	0.000
ICTandOrganizations	0.092	0.037	2.482	0.018

Concerning the assessment of the relationship between political stability and unemployment, within the Arab economies, the average value of political stability under the analyzed period is negative for all the countries except for Qatar and Kuwait that showcase positive results such as 0.85 and 0.28 respectively. According to the results presented in Table 6, findings indicate that through the years and across countries, the political stability variable is significant with a coefficient of -9.281. Thus any increase in unemployment within Arab countries leads the country to be subject to instability.

Table 6: Time series and cross comparison analysis of political stability and unemployment in Arab countries.

Dependent variable: Unemployment
Method: Panel Least Squares
R-squared: 0.353

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	7.739	0.391	19.795	0.000
PSI	-3.835	0.413	-9.281	0.000

Table 7 presents the results of the granger causality test that indicate a low probability of 0.002 for the first null hypothesis that leads to its rejection. This means that the unemployment within Arab countries results in political instability.

Table 7: Granger Causality Test.

Granger Causality Tests
Sample 1996-2014
Lags: 2

Null Hypothesis:	Prob.
Un does not homogeneously cause PSI	0.002
PSI does not homogeneously cause Un	0.915

V. Discussion and Conclusion:

The current research assesses the differences of attribute between generations. Youth in Arab countries are different from old generations, mostly in attributes related to work. This youngest generation takes more initiative, flexible, and has enhanced skills that enable working in teams. The youngest segment is rather collaborative and does not accept receiving orders. These traits contribute to the understanding of preferences of Arab youth that leads to increasing of labor productivity in Arab economies.

Furthermore, this generation is driven by self-interest, which indicates that in order to motivate these individuals, youth should be included in decision making while working collaboratively with their employers.

The above characteristics best align with a model developed by the Youth Working Group (2010). The model does not only consider the youth as target groups, but rather than, it suggests the engagement of this segment as collaborators in any decision based on organizational development, policy, and planning.

This young generation maintains the same moral values as their elders. These moral values are presented as dignity, generosity, hospitality, affection, honesty, as well as many other ones. This is the case for both GCC and non-GCC countries.

This current research studies the relationships among ICTs variables, unemployment, education, and political stability of the current generation. As all Arab countries are pooled into one model, the analysis of the correlation between all the variables gives more incentives. Results are presented in Graph 1.

Even though Arab countries are increasing their expenditures on education, the rates of unemployment remain significantly high. The unemployment is explained by the general education that does not provide individuals with the appropriate and updated skills. In addition to that, this macroeconomic variable causes a depreciation of the political stability of Arab economies.

Graph 1: Correlations between political stability, unemployment, general education, and ICT variables
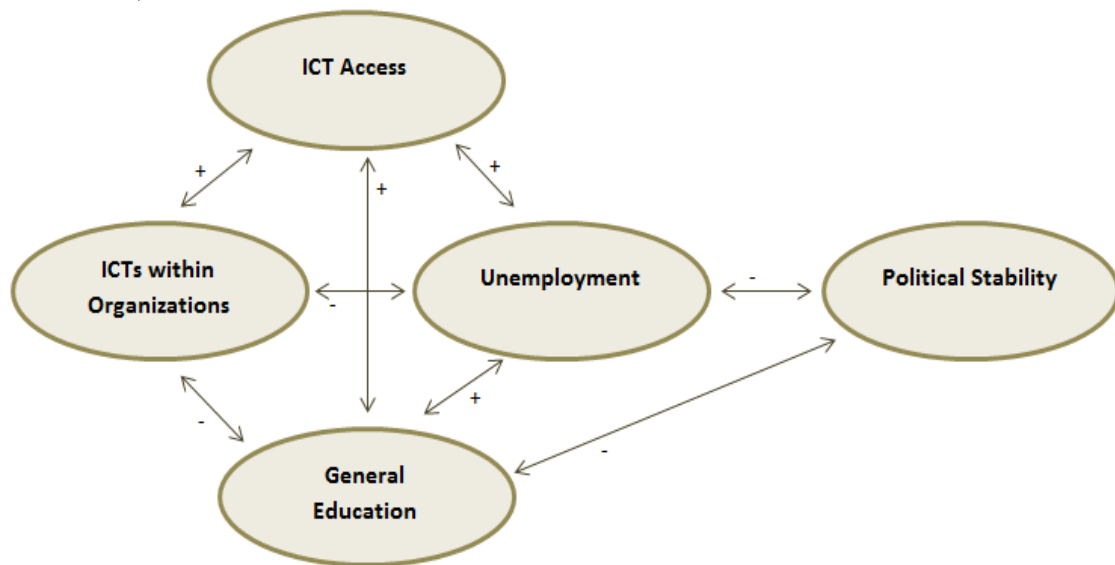
All the above analysis leads to better understanding of the behavior of youth in the Arab economies and implies change in the traditional cultures dominating in workplaces to more modern ones, in order to increase the labor productivity and the engagement of Arab youths. In addition to that, Arab countries should not only focus on enhancing the rates of enrolment in schools, but must focus on the quality and the content of education. Suggestions relate to the introduction of updating the formations and training within educational institutions in order to provide the youth nowadays with up to date knowledge that aligns with most recent ICTs skills based.

References:

Azeng, T. F., & Yogo, T. U. (2013). Youth unemployment and political instability in selected developing countries. *African Development Bank,* 171st ser., 1-31.

Becton, J. B., Walker, H. J. and Jones-Farmer, A. (2014), Generational differences in workplace behavior. J Appl Soc Psychol, 44: 175–189. doi:10.1111/jasp.12208

Bellah, R.N., Madsen, R., Sullivan, W.M., Swidler, A., & Tipton, S.M. (1985). Habits of the heart: Individualism and commitment in American life. Berkeley: University of California Press.

Cornell University, INSEAD, and WIPO (2014): The global innovation index 2014: The human factor in innovation, Fontainebleau, Ithaca, and Geneva.

Cornell University, INSEAD, and WIPO (2013): The global innovation index 2013: The local dynamics of innovation.

Cornell University, INSEAD, and WIPO (2012): the global innovation index 2012: Stronger innovation linkages for global growth.

Cornell University, INSEAD, and WIPO (2011): The global innovation index 2011: Accelerating growth and development.

Dawis, R. (2002). Person-Environment-Correspondence Theory. In S. D. Brown & Associates (4th ed.). Career choice and development. San Francisco, CA: Jossey-Bass.

Dawis, R. V. (2005). The Minnesota theory of work adjustment. In S. Brown & R. Lent (Eds.), Career development and counseling: Putting theory and research to work (chap. 1). Hoboken, NJ: John Wiley.

Dawis, R. V., & Lofquist, L. H. (1984). A psychological theory of work adjustment. Minneapolis, MN: University of Minnesota Press.

Driouchi, A. (2014) Unemployment persistence & risks of skill obsolescence in Arab countries. MPRA 53793.

Driouchi, A. (2015) Threats to skills of unemployed qualified labor in Arab economies. MPRA 67361

Driouchi, A., Gamar, A., Boboc, C., & Achehboune, A. (2016). Inequality, intergenerational mobility of women educational attainment and inclusive policies in Arab countries. *FEMISE*.

European Commission. (2012). Developing the creative and innovative potential of young people through non-formal learning in ways that are relevant to employability. 1-49.

Falk,Gerhard, Falk, A., Ursala,(2005), "Youth Culture and Generation gap," Algora Publishing USA.

Gallup Pakistan Polls, Gilani, IjazShafi. (2009)" No Generation Gap in Majority of Pakistan; Most People Claim They Share Social Views with Parents, Politics is a Slight Exception" Islamabad.

Hansen, J. C., & Leuty, M. E. (2011). Work Values Across Generations. *Journal of Career Assessment, 20*(1), 34-52. doi:10.1177/1069072711417163

International Year of Youth. (2011). Dialogue and mutual understanding. 1-10.

Ghafar, A. A. (2016). Educated but unemployed: The challenge facing Egypt's youth. *Brookings Doha Center,* 1-16.

Guthrie, L. (2009). The next generation of workers. *The Ken Blanchard Companies,* 1-36.

John, S. (2016). About thesurvey. from http://www.arabyouthsurvey.com/en/about

Kalleberg, A. L., & Stark, D. (1993). Career strategies in capitalism and socialism: Work values and job rewards in the United States and Hungary. Social Forces, 72, 181–198.

Kingsley Davis. (1940). Extreme Social Isolation of a Child. American Journal of Sociology, 45(4), 554-565. Retrieved from http://www.jstor.org/stable/2770265

Mourad, S. (2009). Studying youth in the Arab world. *The Issam Fares Institute for Public Policy and International Affairs at AUB,* 1-8.

Mulderig, C. (2013). An uncertain future: Youth frustration and the Arab spring. *Boston University,* (16), 1-38.

Ng, E. S., Schweitzer, L., & Lyons, S. T. (2010). New generation, great expectations: A field study of the millennial generation. *Journal of Business and Psychology, 25*(2), 281-292. doi:10.1007/s10869-010-9159-4

Olson, P., & Brescher, H. (2011). The four generations: Who they are. *Adayana,* 1-13.

Quintelier, E. (2007). Differences in political participation between young and old people. *Contemporary Politics, 13*(2), 165-180. doi:10.1080/13569770701562658

Parry, E. and Urwin, P. (2011), Generational differences in work values: A review of theory and evidence. International Journal of Management Reviews, 13: 79–96. doi:10.1111/j.1468-2370.2010.00285.x

Perveen, K., Usman, N., & Aftab, R. (2013). Interaction pattern and generation gap between offspring and parents. *Interdisciplinary Journal of Contemporary Research in Business, 5*(1), 1-14.

PRB (2001). Population trends and challenges in the Middle East and north Africa. *Population Reference Bureau,* 1-8.

Putnam, R.D. (2000). Bowling alone: The collapse and revival of American community. New York: Simon & Schuster.

Rounds, J. B. (1990). The comparative and combined utility of work value and interest data in career counseling with adults. Journal of Vocational Behavior, 37, 32–45.

Schofield, C. P., & Honoré, S. (2015). *A new generation: the success of generation Y in GCC countries*. Berkhamsted, Hertfordshire: Research Department, Ashridge Business School.

Shediac, R., Shehadi, R. T., Bhargava, J., & Samman, H. (2013). Generation A: Differences and similarities across the Arab generations. *Booz & Company*, 1-52.

Shelley, M. C., Thrane, L. E., & Shulman, S. W. (2004). Generational differences in informational technology use and political involvement. *E-Government Research,* 336-356. doi:10.4018/978-1-59904-913-7.ch015

Smola, K. W., & Sutton, C. D. (2002). Generational differences: Revisiting generational work values for the new millennium. *Journal of Organizational Behavior, 23*(4), 363-382. doi:10.1002/job.147

Sun, J., Wang, X. (2010) Value differences between generations in China: a study in Shanghai, Journal of Youth Studies, 13(1), 65-81.

Super, D. E., Crites, J. O., Hummel, R. C., Moser, H. P., Overstreet, P. L., & Warnath, C. L. (1957). Vocational development: A framework for research. New York, NY: Teachers College Press.

Swenson, M. J., & Herche, J. (1994). Social values and salesperson performance: An empirical examination. Journal of the Academy of Marketing Science, 22, 283–289.

Trzesniewski, K. H., & Donnellan, M.B. (2009). Are today's young people really that different from previous generations? A skeptical perspective on "generation me" *The Jury Expert, 21*(3), 1-96.

Trzesniewski, K.H., & Donnellan, M.B. (2009) Rethinking "Generation Me": A study of cohort effects from 1976-2006. Perspectives in Psychological Science.

Twenge, J.M. (2006). Generation Me: Why today's young Americans are more confident, assertive, entitled - and more miserable than before. New York: Free Press.

Twenge, J. M., & Campbell, S. M. (2008). Generational differences in psychological traits and their impact on the workplace. *Journal of Managerial Psychology, 23*(8), 862-877. doi:10.1108/02683940810904367

Twenge, J. M., Campbell, W. K., & Freeman, E. C. (2012). Generational differences in young adults' life goals, concern for others, and civic orientation, 1966-2009. *Journal of Personality and Social Psychology, 102*(5), 1045-1062. doi:10.1037/a0027408

United Nations. (2012). Youth and ICT. *United Nations Youth,* 1-7.

Williams, K. K., Page, R. A., Petrosky, A. R., & Hernandez, E. H. (2010). Multi-generational marketing: Descriptions, characteristics, lifestyles, and attitudes. *Journal of Applied Business and Economics,* 1-17.

WJSchroer. (2012) Generations X,Y, Z and the Others. Retrieved from
http://socialmarketing.org/archives/generations-xy-z-and-the-others/

Worldbank. (2016). Unemployment, youth female (% of female labor force ages 15-
24) (modeled ILO estimate). Retrieved from
http://data.worldbank.org/indicator/SL.UEM.1524.FE.ZS

Worldbank. (2016). Unemployment, youth male (% of female labor force ages 15-24)
(modeled ILO estimate). Retrieved from
http://data.worldbank.org/indicator/SL.UEM.1524.MA.ZS

Worldbank. (2010). Young people in Arab countries: Promoting opportunities and
participation. 1-70.

Young, R. A. (1984). Vocational choice and values in adolescent women. Sex
Roles, 10, 485–492.

Youth Working Group. (2010). Youth participation in development: A guide for
development agencies and policy makers. *DFID–CSO Youth Working
Group,*1-120.

Zytowski, D. G. (1994). A Super contribution to career theory: Work values.
Career Development Quarterly, 42, 25–31.

Appendix A: Contingency Tables

Table A1: Contingency table of the work attributes associated with younger generations

	ADG	ARG	ANG
Take Initiative	54	45	40
Flexible	53	50	37
Team Spirit	57	42	26

Table A2: Contingency table of the work attributes associated with older generations

	ADG	ARG	ANG
Willingness to teach	58	66	75
Controlling	67	64	70
Lead by example	65	73	70
Punctual	66	72	72
Respectful	63	71	68

Table A3: Contingency table of the female perception of the contribution in the economy between generations

	ADG	ARG	ANG
Make herself useful	59	58	56
Make use of her education	53	49	46
To afford modern luxuries	38	36	37
It is good for the national economy	35	34	30
Contribute financially to the household	49	51	52
Play a role in securing her children's future	50	53	44
Freedom to meet new people and broaden life	41	42	43

Table A4: Contingency table of the values between generations for GCC countries

GCC countries	ADG	ARG	ANG
Dignity	32	35	41
Generosity	29	29	36

Hospitality	29	31	40
Affection	22	30	25
Honesty	29	27	40
Commitment	16	25	29
Achievement	21	23	24
Creativity	20	16	22
Adventure	21	17	19
Religiousness	20	18	18

Table A5: Contingency table of the values between generations for Non-GCC Countries

Non-GCC countries	ADG	ARG	ANG
Dignity	36	39	41
Generosity	23	25	32
Hospitality	23	23	26
Affection	20	31	34
Honesty	23	17	25
Commitment	15	25	33
Achievement	10	14	26
Creativity	21	18	19
Adventure	20	20	17
Religiousness	19	22	17

Table A6: Contingency table of the perception of macroeconomic threats for GCC Countries (part1)

GCC countries	ADG	ARG	ANG
Corruption	44	49	46
High level of unemployment	42	46	43
Poor quality of healthcare	38	40	35
Lack of freedom of speech	37	39	35
Lack of infrastructure	35	36	32
Poor quality of education	35	34	36
High crime rate	29	28	25
Political instability	20	19	19

Table A7: Contingency table of the perception of macroeconomic threats between generations for Non-GCC Countries (part1)

Non-GCC countries	ADG	ARG	ANG
Corruption	84	91	90
High level of unemployment	83	84	81
Poor quality of healthcare	69	73	77
Lack of freedom of speech	67	70	77
Lack of infrastructure	67	71	69
Poor quality of education	59	63	74
High crime rate	53	56	64
Political instability	46	51	55

Table A8: Contingency table of the perception of macroeconomic threats for ADG in GCC and Non-GCC generations in Arab countries (part 1)

GCC countries	ADG-GCC	ADG-Non-GCC
Corruption	44	84
High level of unemployment	42	83
Poor quality of healthcare	38	69
Lack of freedom of speech	37	67
Lack of infrastructure	35	67
Poor quality of education	35	59
High crime rate	29	53
Political instability	20	46

Table A9: Contingency table of the perception of macroeconomic threats for ARG in GCC and Non-GCC generations in Arab countries (part 1)

GCC countries	ARG-GCC	ARG-Non-GCC
Corruption	49	91
High level of unemployment	46	84
Poor quality of healthcare	40	73
Lack of freedom of speech	39	70
Lack of infrastructure	36	71
Poor quality of education	34	63

High crime rate	28	56
Political instability	19	51

Table A10: Contingency table of the perception of macroeconomic threats for ANG in GCC and Non-GCC generations in Arab countries (part 1)

GCC countries	ANG-GCC	ANG-Non-GCC
Corruption	46	90
High level of unemployment	43	81
Poor quality of healthcare	35	77
Lack of freedom of speech	35	77
Lack of infrastructure	32	69
Poor quality of education	36	74
High crime rate	25	64
Political instability	19	55

Table A11: Contingency table of the perception of macroeconomic threats between generations for GCC Countries (part2)

GCC countries	ADG	ARG	ANG
High cost of living	61	61	64
Poverty	53	53	56
High cost of healthcare	46	46	46
High cost of education	29	29	32

Table A12: Contingency table of the perception of macroeconomic threats for Non-GCC Countries (part2)

Non-GCC countries	ADG	ARG	ANG
High cost of living	87	86	83
Poverty	83	81	85
High cost of healthcare	80	80	79
High cost of education	75	76	81

Table A13: Contingency table of the perception of macroeconomic threats for ADG in GCC and Non-GCC generations in Arab countries (part 2)

GCC countries	ADG-GCC	ADG-Non-GCC
High cost of living	61	87
Poverty	53	83
High cost of healthcare	46	80
High cost of education	29	75

Table A14: Contingency table of the perception of macroeconomic threats for ARG in GCC and Non-GCC generations in Arab countries (part 2)

GCC countries	ARG-GCC	ARG-Non-GCC
High cost of living	61	86
Poverty	53	81
High cost of healthcare	46	80
High cost of education	29	76

Table A15: Contingency table of the perception of macroeconomic threats for ANG in GCC and Non-GCC generations in Arab countries (part 2)

GCC countries	ANG-GCC	ANG-Non-GCC
High cost of living	64	83
Poverty	56	85
High cost of healthcare	46	79
High cost of education	32	81

Appendix B: Analysis of Variance Results

Table B1: Analysis of variance of the work attributes associated with younger generations

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ADG	3	164	54.67	4.33
ARG	3	137	45.67	16.33
ANG	3	103	34.33	54.33

Table B2: Analysis of variance of the work attributes associated with older generations

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ADG	5	319	63.8	12.7
ARG	5	346	69.2	15.7
ANG	5	355	71	7

Table B3: Analysis of variance of the female perception of the contribution in the economy between generations

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ADG	7	325	46.43	75.29
ARG	7	323	46.14	81.14
ANG	7	308	44	76.33

Table B4: Analysis of variance of the values between generations for GCC countries

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ADG	10	239	23.9	28.54

			10	251	25.1	42.1
ARG			10	251	25.1	42.1
ANG			10	294	29.4	82.71

Table B5: Analysis of variance of the values between generations for Non-GCC Countries

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ADG	10	210	21	44.44
ARG	10	234	23.4	53.16
ANG	10	270	27	64

Table B6: Analysis of variance of the perception of macroeconomic threats between generations for GCC Countries (part1)

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ADG	8	280	35	57.71
ARG	8	291	36.38	92.84
ANG	8	271	33.88	77.27

Table B7: Analysis of variance of the perception of macroeconomic threats between generations for Non-GCC Countries (part1)

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ADG	8	528	66	177.43
ARG	8	559	69.88	178.98
ANG	8	587	73.38	115.13

Table B8: Analysis of variance of the perception of macroeconomic threats for ADG between GCC and Non-GCC generations in Arab countries (part 1)

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ADG-GCC	8	280	35	57.71
ADG-Non-GCC	8	528	66	177.43

Table B9: Analysis of variance of the perception of macroeconomic threats for ARG between GCC and Non-GCC generations in Arab countries (part 1)

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ARG-GCC	8	291	36.38	92.84
ARG-Non-GCC	8	559	69.88	178.98

Table B10: Analysis of variance of the perception of macroeconomic threats for ANG between GCC and Non-GCC generations in Arab countries (part 1)

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ANG-GCC	8	271	33.88	77.27
ANG-Non-GCC	8	587	73.38	115.13

Table B11: Analysis of variance of the perception of macroeconomic threats for GCC Countries (part2)

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ADG	4	189	47.25	185.58
ARG	4	189	47.25	185.58
ANG	4	198	49.5	190.33

Table B12: Analysis of variance of the perception of macroeconomic threats for Non-GCC Countries (part2)

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance

ADG	4	325	81.25	25.58
ARG	4	323	80.75	16.92
ANG	4	328	82	6.67

Table B13: Analysis of variance of the perception of macroeconomic threats for ADG between GCC and Non-GCC generations in Arab countries (part 2)

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ADG-GCC	4	189	47.25	185.58
ADG-Non-GCC	4	325	81.25	25.58

Table B14: Analysis of variance of the perception of macroeconomic threats for ARG between GCC and Non-GCC generations in Arab countries (part 2)

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ARG-GCC	4	189	47.25	185.58
ARG-Non-GCC	4	323	80.75	16.92

Table B15: Analysis of variance of the perception of macroeconomic threats for ANG between GCC and Non-GCC generations in Arab countries (part 2)

Analysis of Variance (One-Way)

Summary

Groups	Sample size	Sum	Mean	Variance
ANG-GCC	4	198	49.5	190.33
ANG-Non-GCC	4	328	82	6.67