

American University in Cairo

## AUC Knowledge Fountain

---

Theses and Dissertations

---

6-1-2012

### Out-of-country voting systems and Egyptian elections: a future outlook

Sherine Mohamed El-Saeed

Follow this and additional works at: <https://fount.aucegypt.edu/etds>

---

#### Recommended Citation

##### APA Citation

El-Saeed, S. (2012). *Out-of-country voting systems and Egyptian elections: a future outlook* [Master's thesis, the American University in Cairo]. AUC Knowledge Fountain.

<https://fount.aucegypt.edu/etds/1092>

##### MLA Citation

El-Saeed, Sherine Mohamed. *Out-of-country voting systems and Egyptian elections: a future outlook*. 2012. American University in Cairo, Master's thesis. *AUC Knowledge Fountain*.

<https://fount.aucegypt.edu/etds/1092>

This Thesis is brought to you for free and open access by AUC Knowledge Fountain. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of AUC Knowledge Fountain. For more information, please contact [mark.muehlhaeusler@aucegypt.edu](mailto:mark.muehlhaeusler@aucegypt.edu).

**The American University in Cairo**  
**School of Global Affairs and Public Policy**

**OUT-OF-COUNTRY VOTING SYSTEMS AND EGYPTIAN  
ELECTIONS  
A FUTURE OUTLOOK**

**A Thesis Submitted to**  
**The Public Policy and Administration Department**

**in partial fulfillment of the requirements for the degree of**  
**Master of Public Administration**

**By**  
**Sherine El-Saeed**

**under the supervision of**  
**Dr. Hamid Ali**

**May 2012**

The American University in Cairo  
School of Global Affairs and Public Policy  
Department of Public Policy and Administration

## OUT-OF-COUNTRY VOTING SYSTEMS AND EGYPTIAN ELECTIONS

### A FUTURE OUTLOOK

Sherine El-Saeed

Supervised by Dr. Hamid Ali

#### **ABSTRACT**

The 25 January revolution has created a new reality in Egypt. It has made Egyptian citizens more eager than ever to participate in the political life and to exercise their long awaited right to elect their representatives and leaderships. It was therefore inevitable for Egyptians living abroad to demand their right to vote. The Supreme Judicial Committee for Elections (SJCE) accordingly approved a system for out-of-country voting that was implemented in the Parliamentary Elections 2011/2012. 'Postal Voting' was chosen for the process. The Committee's choice of the voting system was done in an exceptionally short period of time and under considerable pressure. It was therefore crucial to examine the system that has already been adopted and implemented. It was also vital to decide which of the four main external voting options (Postal – Personal – Proxy - Electronic), or which combination of them, is the most suitable for the future Egyptian elections. The main objective of the research was to determine which option is the cheapest, which is the most secure and which is likely to lead to the highest turnout rates in out-of-country voting. A combination of quantitative and qualitative approaches was used in this study. Empirical analysis revealed a strong relationship between implementing postal voting and increasing turnout rates. Qualitative analysis suggested that e-voting is the cheapest voting method, while personal voting is the most secure. It was concluded that the most suitable out-of-country voting method for future Egyptian elections is the postal voting.

## TABLE OF CONTENTS

<b>I. INTRODUCTION.....</b>	<b>1</b>
A. RESEARCH TOPIC.....	1
B. STATEMENT OF THE PROBLEM .....	2
C. CONCEPTUAL FRAMEWORK .....	3
<b>II. BACKGROUND AND LITERATURE REVIEW .....</b>	<b>5</b>
A. BACKGROUND .....	5
B. LITERATURE REVIEW.....	7
1. General Aspects About OCV .....	8
2. Electronic Voting.....	9
3. Postal Voting .....	11
<b>III. METHODOLOGY.....</b>	<b>14</b>
A. DESIGN STRATEGY AND FRAMEWORK.....	14
B. DATA COLLECTION.....	14
C. LIMITATIONS .....	16
<b>IV. DATA ANALYSIS.....</b>	<b>18</b>
A. OCV PROCESS DESIGN AND REGISTRATION PHASE .....	18
B. ELECTION PROCESS FOR OCV .....	19
C. TURNOUT DATA IN THE EGYPTIAN ELECTIONS.....	22
D. PROBLEMS AND COMMENTS REPORTED BY ADMINISTRATORS.....	27
E. PROBLEMS AND COMMENTS REPORTED BY VOTERS.....	29
F. COMPARATIVE CROSS-COUNTRY DATA ANALYSIS .....	31
G. OCV COST AND SECURITY ANALYSIS.....	35
<b>V. FINDINGS AND CONCLUSIONS.....</b>	<b>38</b>
<b>VI. POLICY IMPLICATIONS AND RECOMMENDATIONS.....</b>	<b>40</b>
<b>REFERENCES.....</b>	<b>43</b>
<b>APPENDIX A – TURNOUT RATE PER COUNTRY IN THE EGYPTIAN PARLIAMENTARY ELECTIONS .....</b>	<b>46</b>

## LIST OF TABLES

Table 1:	Countries Implementing Hybrid Voting Systems.....	5
Table 2:	Countries Implementing Single Voting Systems.....	6
Table 3:	Types of Elections in which OCV is Applied.....	7
Table 4:	Comparison Among Turnout Rates in 2011 Election Phases.....	24
Table 5:	Possible Determinants for Turnout.....	32
Table 6:	Significance of Determinants of Turnout.....	32
Table 7:	Pearson Correlations.....	33
Table 8:	Turnout in OCV in Portuguese Legislative Elections.....	34

## LIST OF FIGURES

Figure 1: Aspects of OCV.....	3
Figure 2: Possible Determinants of Turnout Rates.....	4
Figure 3: Distribution of Registered Egyptian Voters.....	23
Figure 4: Distribution of Actual Egyptian Voters.....	24
Figure 5: Turnout in Countries with Most Voters: Phase I.....	25
Figure 6: Turnout in Countries with Most Voters: Phase II.....	25
Figure 7: Turnout in Countries with Most Voters: Phase III.....	26

## **LIST OF ACRONYMS**

Ministry of Foreign Affairs	MFA
Out-of-Country Voting	OCV
Institute for Democracy and Electoral Assistance	IDEA
Supreme Judicial Committee for Elections	SJCE

## **I. INTRODUCTION**

### **A. Research Topic**

Many countries currently allow the option of out-of-country voting (OCV) to citizens living abroad. A need to implement such systems arose because of increased migration for numerous purposes and the rise in impermanent travel which deprived millions of citizens of their basic right to vote. When these new conditions were coupled with the growing awareness about political entitlements, citizens began to voice their desire to exercise their right to vote even when living abroad. Some governments acted decades ago to fulfill this plea by implementing OCV systems. Nonetheless, the decision to allow such an option to citizens has not always been a voluntary one. In some countries allowing OCV was offered after considerable pressure was exerted, either by the expatriates or the international community, on the decision makers of the country in question. Allowing citizens residing abroad to vote is particularly important in countries which have a significant proportion of their populations living abroad.

The 25 January revolution has created a new reality in Egypt. It has made Egyptian citizens more aware of their rights and more concerned about the public and political affairs of their country. They have become more eager than ever to participate in the political life and to exercise their long awaited right to elect their representatives and leaderships. It was therefore inevitable for Egyptians living abroad to demand their right to vote and insist on it. It is estimated that around 8 million Egyptian citizens reside abroad and this emphasizes the importance of such an issue in the Egyptian context. Despite the fact that the desire of Egyptian expatriates to vote was disregarded by the decision makers in the months following the revolution, the ruling of the Egyptian Supreme Administrative Court enabling Egyptian citizens living abroad to vote in October 2011 changed everything. The ruling however was issued a little over a month before the parliamentary elections were due to start. This posed a severe implementation challenge to the interim government in the previous parliamentary elections. It is therefore crucial to carefully examine all possible alternatives and options to establish a robust out-of-country voting system and this is what the research attempted to do.



There are four main voting options for citizens living abroad (Ellis & Wall, 2007). The first is 'Personal Voting', in which citizens go to diplomatic missions or specified polling places set up abroad to cast their votes (Ellis & Wall, 2007). The second is 'Postal Voting', in which citizens fill out the ballots at the place of residence and send them by ordinary mail either to the home country or to diplomatic missions (Ellis & Wall, 2007). The third is 'Proxy Vote', in which citizens residing abroad choose a proxy to cast their votes at a polling station in the home country or abroad in diplomatic missions (Ellis & Wall, 2007). The final option is 'Electronic Means', in which voters use the Internet, personal digital assistants or telephones to cast their votes (Ellis & Wall, 2007). 'Postal Voting' was chosen for the OCV system approved by the SJCE. Citizens were given the choice to either send their votes to the diplomatic missions through ordinary mail or to personally hand in their votes in closed envelopes to the missions.

## **B. Statement of the Problem**

As with most countries going through transition, Egypt had to set up an external voting system from scratch without trained staff or relevant structures in place. Establishing a new external voting system in any country is usually a complex and challenging endeavor. To complicate matters further, the planning and mobilization of resources for implementation in Egypt was done in an exceptionally short period of time. This subjected all participants in the process to considerable pressure at a time when public sentiment was already running high. As a result, the OCV system that was adopted faced many problems and contained numerous drawbacks which were evident during all stages of casting and counting the votes. These shortcomings were reported by the different stakeholders in the process including voters, diplomats administering the external voting in Egyptian embassies abroad and diplomats in the Egyptian Ministry of Foreign Affairs acting as liaisons between the Supreme Judicial Committee for Elections (SJCE) and the Egyptian embassies abroad.

The central question that was answered by the study is which out-of-country voting option (or combination of options) is most suitable for future elections in Egypt? To answer this question, four subsidiary questions were answered. The first was what are the negative aspects of the OCV system devised by the SJCE for the

parliamentary elections in Egypt? The second was which out-of-country voting option (Personal / Postal / Proxy / Electronic) guarantees higher turnout by external voters based on cross-country data collected about OCV systems implemented by other countries? The third was which out-of-country voting option costs less to administer? And the fourth was which out-of-country voting option is more secure? When the most suitable alternative for OCV is chosen, a specific set of recommendations concerning it were proposed for all stages of the voting process starting from the registration and continuing to announcing the results.

### C. Conceptual Framework

Three aspects of the out-of-country voting methods implemented in other countries were examined to determine which option will be most suitable for Egyptian elections (Figure 1). The main objective was to show which option is the cheapest, which is the most secure and which guarantees the highest turnout levels in OCV.

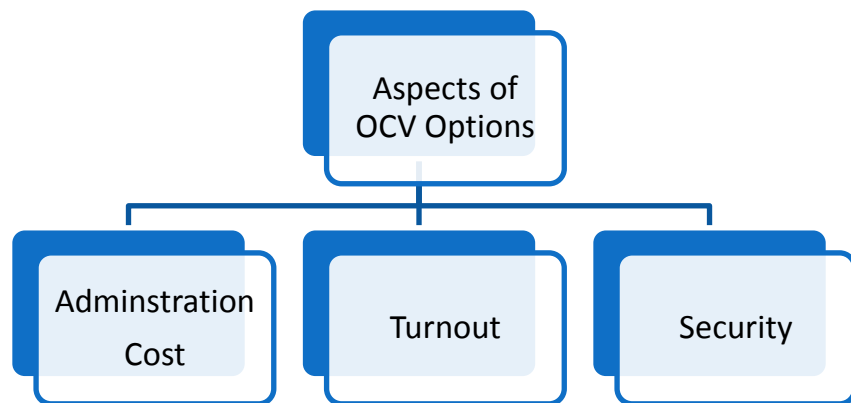


FIGURE 1- ASPECTS OF OCV

Clearly, the turnout rates in out-of-country elections are not only affected by the voting system/s used. Other significant factors can be examined to determine whether or not they can be considered determinants for the turnout rates. Based on the literature reviewed, these factors could include the political stability, civil liberties, literacy levels, human development and citizen migration characteristics (Figure 2). When analyzing available data about the turnout in OCV in different countries, these factors were taken into consideration to be able to draw results relevant to Egypt.

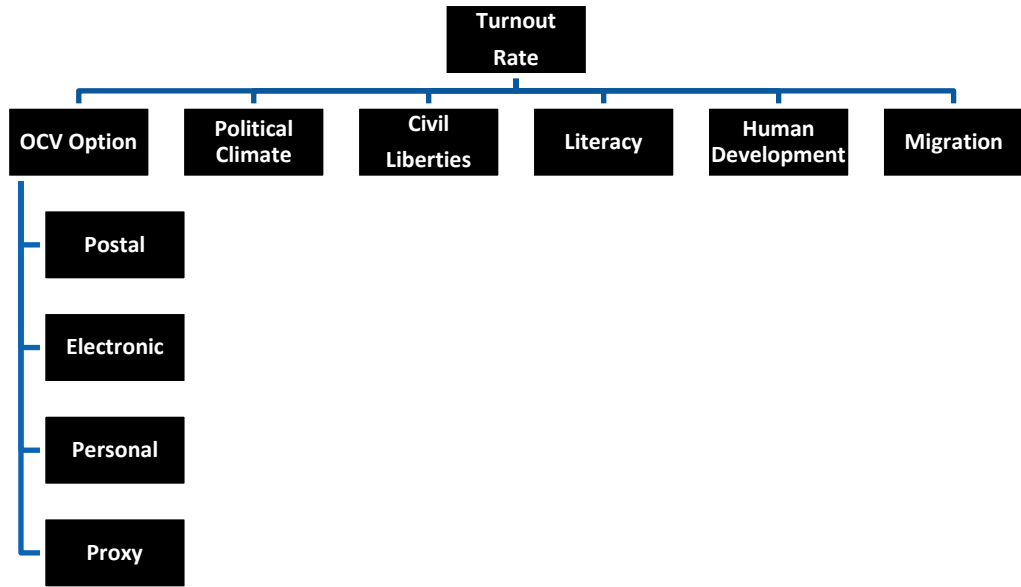


FIGURE 2 – POSSIBLE DETERMINANTS OF TURNOUT RATES

## II. BACKGROUND AND LITERATURE REVIEW

### A. Background

According to data in the *Voting from Abroad: The International IDEA Handbook* concerning the OCV systems implemented by the various countries around the world, the following conclusions can be made:

- 1) Until 2007, 110 countries worldwide had implemented some form of OCV voting for citizens living abroad. Five other countries had introduced constitutional or legal provisions that make voting from abroad possible, but have not actually implemented the process. These countries are Angola, Bolivia, Greece, Nicaragua and Panama.
- 2) Of the 110 countries, 27 implemented hybrid systems for out-of-country voting, while 83 applied single systems. The most used single system was the personal voting system (Table 1), while the most used hybrid systems were (personal + postal) and (personal + proxy) (Table 2).

TABLE 1 – COUNTRIES IMPLEMENTING SIGLE VOTING SYSTEMS (SOURCE: THE INTERNATIONAL IDEA HANDBOOK)

Procedures	No. of Cases	Countries
<b>Personal voting only</b>	54	Afghanistan, Angola, Argentina, Azerbaijan, Belarus, Botswana, Brazil, Bulgaria, Cape Verde, Central African Republic, Colombia, Côte d’Ivoire, Croatia, Czech Republic, Djibouti, Dominican Republic, Ecuador, Equatorial Guinea, Finland, Georgia, Ghana, Guinea-Bissau, Guyana, Honduras, Hungary, Iceland, Iran, Iraq, Israel, Kazakhstan, Kyrgyzstan, Laos, Moldova, Mozambique, Namibia, Niger, Peru, Pitcairn Islands, Poland, Romania, Russia, Rwanda, São Tomé and Príncipe, Senegal, Singapore, South Africa, Sudan, Syria, Tunisia, Turkey, Ukraine, Uzbekistan, Venezuela, Yemen
<b>Postal voting only</b>	25	Austria, Bangladesh, Bosnia and Herzegovina, Canada, Denmark, Falkland Islands, Fiji, Germany, Gibraltar, Guernsey, Ireland, Italy, Jersey, Lesotho, Liechtenstein, Luxembourg, Malaysia, Isle of Man, Marshall Islands, Mexico, Norway, Panama, Switzerland, Tajikistan, Zimbabwe

<b>Proxy voting only</b>	4	Mauritius, Nauru, Togo, Vanuatu
--------------------------	---	---------------------------------

TABLE 2 – COUNTRIES IMPLEMENTING HYBRID VOTING SYSTEMS (SOURCE: THE INTERNATIONAL IDEA HANDBOOK)

<b>Mixed Voting Procedures</b>	<b>No. of Cases</b>	<b>Countries</b>
<b>Personal + Postal</b>	12	Cook Islands, Indonesia, Japan, Latvia, Lithuania, Micronesia, Palau, Philippines, Portugal, Slovenia, Spain, Thailand
<b>Personal + Proxy</b>	7	Algeria, Benin, Chad, France, Gabon, Guinea, Mali
<b>Postal + Proxy</b>	2	India, United Kingdom
<b>Personal + Postal + Proxy</b>	2	Belgium, Sweden
<b>Other combinations</b>	4	Australia (personal, postal, fax), Estonia (personal, postal, e-voting), Netherlands (postal, proxy, e-voting), New Zealand (personal, postal, fax)

- 3) Until 2007, no country used remote e-voting as the only available option for out-of-country voting. Only two countries used it as a part of a hybrid system which included two other voting options. Estonia implemented e-voting along with personal and postal voting, while the Netherlands implemented it along with postal and proxy voting.
- 4) It can be concluded from the previous numbers that around 49 percent of countries that allow voting from abroad use personal voting, while 23 percent use postal voting and 11 percent use a combination of postal and personal. This means that 83 percent of countries allowing out-of-country voting use one of only three voting methods. Although the other voting options will be examined throughout this research, emphasis will be made on these three voting systems to determine the best option for the Egyptian context.
- 5) Out-of-country voting is applied to different types of elections; mainly legislative, presidential and sub-national elections, in addition to referenda. The focus of this research will be on the presidential and legislative elections only. Until 2007, 31 countries allowed voting from abroad in legislative

elections only, 14 for presidential elections only, and 20 for both presidential and legislative elections (Table 3).

- 6) Although a system has been devised for the OCV in the previous parliamentary elections in Egypt, it has not yet been determined in which types of elections will out-of-country voting be allowed. At the time of writing this research the Egyptian presidential election was due to start in days and it was announced that OCV would be allowed. It is still unclear however whether voting in local elections and on referenda will include OCV or not.

TABLE 3 - TYPES OF ELECTIONS IN WHICH OCV IS APPLIED (SOURCE: THE INTERNATIONAL IDEA HANDBOOK)

<b>Type of Election</b>	<b>No. of Cases</b>	<b>Countries</b>
<b>Legislative only</b>	31	Angola, Australia, Azerbaijan, Bangladesh, Belgium, Botswana, Czech Republic, Fiji, Germany, Gibraltar, Greece, Guernsey, Guinea-Bissau, Guyana, India, Iraq, Japan, Jersey, Laos, Lesotho, Luxembourg, Marshall Islands, Nauru, Netherlands, Oman, Pitcairn Islands, South Africa, Thailand, Turkey, United Kingdom, Zimbabwe
<b>Presidential only</b>	14	Afghanistan, Benin, Bolivia, Brazil, Central African Republic, Chad, Côte d'Ivoire, Dominican Republic, Ecuador, Honduras, Mexico, Panama, Tunisia, Venezuela
<b>Legislative + Presidential</b>	20	Argentina, Bulgaria, Cape Verde, Croatia, Djibouti, Equatorial Guinea, Georgia, Ghana, Guinea, Indonesia, Israel, Mozambique, Namibia, Nicaragua, Philippines, Romania, São Tomé and Príncipe, Senegal, Singapore, Syria
<b>Legislative + Presidential + Other Types</b>	17	Algeria, Austria, Belarus, Colombia, Ireland, Moldova, Peru, Poland, Portugal, Russia, Rwanda, Slovenia, Tajikistan, Togo, Ukraine, United States, Uzbekistan

## B. Literature Review

## **1. General Aspects About OCV**

It is clear from the literature written about OCV that this issue raises considerable controversy and disagreements. Differences of opinion regarding voting from abroad encompasses a wide range of related aspects; including who should vote, in which types of elections, whether it is a good idea to allow external voting or not, etc. Supporters of allowing voting for citizens living abroad believe that it is crucial since it helps maintain vital political ties with citizens who have left the country and who can be an important source of remittances which has become a significant source of income for some countries (Itzigsohn, 2000; Bauböck, 2005; Collyer & Vathi, 2007). It is also argued that emigrants are politically important to the country of origin since they have the ability to organize influential lobbies that can support the political interests of the sending state (Levitt, 2001; Bauböck, 2005; Grace, 2007). The main idea behind such an approach is that by giving their citizens abroad more rights, governments can reasonably expect more from expatriates in return (Collyer & Vathi, 2007).

On the other hand, opponents of allowing voting from abroad believe that citizens who live permanently - or for extended periods of time - abroad will not be affected by decisions made by legislatures and decision-makers, and should thus have no impact on elections results (Bauböck, 2005; Collyer & Vathi, 2007). It is argued that as a result of that, expatriates may be expected to vote less responsibly than those who are voting in-country (Grace, 2007). It is also contended by experts that expatriate voters may not have sufficient information about candidates and the political environment in their country of origin, and therefore are more likely to make the wrong choices (Collyer & Vathi, 2007). This is why many states that currently allow voting from abroad restrict that practice to voting in national elections only, since it is relatively easy to obtain information about them compared to local or municipal elections (Grace, 2007).

In terms of election administration, opponents of allowing expatriates to vote also indicate that out-of-country voting presents numerous challenges to election administrators. They claim that the costs associated with allowing citizens residing in scattered places abroad to vote places an “undue burden on those who remain” (Grace, 2007). It is concluded by experts that the cost per voter in out-of-country

elections is higher than that for in-country elections (Ellis & Wall, 2007). Another significant concern is the fact that maintaining the transparency and integrity of out-of-country voting is a challenge since the electoral bodies do not have direct jurisdiction in other countries (Grace, 2007). Additionally, citizens and political parties will usually find it problematic to observe the voting process abroad (Grace, 2007). Lowering the costs of out-of-country voting on citizens is seen as one of the major determinants that encourage citizen participation and can lead to increased turnout rates (Karp & Banducci, 2001). It is estimated, for example, that one of the major disadvantages of postal voting is its high costs on citizens in addition to possible slow postal services (Ellis & Wall, 2007).

Allowing voting to expatriates can be implemented in different forms. Citizens living abroad can be allowed to come back to their home country and vote in their district, they can vote from abroad for candidates in their home district, or they can vote from abroad for a 'direct representative' allowing them to have their own special representative in parliament (Collyer & Vathi, 2007). The most commonly implemented among the three systems is voting from abroad for candidates in the home electoral district (Collyer & Vathi, 2007). However, it is argued by experts that offering expatriates their own special representative in parliament is an effective way of mobilizing their votes (Bauböck, 2005).

One of the major issues discussed in the literature regarding out-of-country voting are the conditions specified by government that must be met by expatriates to allow them to register for voting (Grace, 2007). For example, the right to vote is sometimes limited to those who have certain identity cards such as voter identity cards which "de facto restricts access to voting rights for millions" (Lafleur, 2011). Other conditions may also include whether or not the voter keeps a fixed residence in the country of origin, how long the voter has been away from the state, in addition to the intent to return (Grace, 2007).

## **2. Electronic Voting**

Several aspects need to be considered regarding electronic voting as one of the four main options for out-of-country voting. The first is to what extent could the application of electronic voting leads to higher turnout rates. It is suggested by various



researchers and experts that this type of voting can have a positive effect on the turnout of specific segments of the population, particularly the younger generation which is increasingly familiar with computers and the internet (Hall & Alvarez, 2004; Thomas & Streib, 2003). It is also quite convenient for citizens of all ages to be able to vote in the comfort of their homes or offices (Epstein, 2011). Nonetheless, several researches confirm that e-voting will probably not encourage those people who originally do not vote to change their attitudes, it might however improve turnout among voters who sometimes vote and sometimes do not (Madise & Martens, 2006). It was found, for example, that in Switzerland internet voting had a significant impact on voters aged from 18 – 29 years (Different views of evoting – The Geneva Internet Voting System, 2005). This group of voters usually cast around 7-8 percent of all ballots, nonetheless when they had the option of e-voting they cast 10 percent of all ballots (Different views of evoting – The Geneva Internet Voting System, 2005).

On the other hand, the effect of this voting option on the turnout rates depends also on how secure citizens believe this method to be (Schaupp & Carter, 2005). Opponents of e-voting stipulate that security is a major obstacle facing the adoption of this technique in voting (Hall & Alvarez, 2004; Jefferson, Rubin, Simons, & Wagner, 2004; Jukic & Vintar, 2006). Such a concern will of course also apply to the segment of the population which were expected to benefit the most from applying it, the younger computer savvy generations. Although there are many contradicting views regarding whether or not e-voting can be secured well-enough to avoid jeopardizing the integrity of elections, a considerable number of security experts do believe that "internet technology cannot guarantee the integrity of e-voting" (Lemos, 2004).

One of the countries which attempted to implement a wide-scale internet-based electronic voting system for electors overseas was the USA (Ellis & Wall, 2007). The SERVE (Secure Electronic Registration and Voting Experiment) was planned to be implemented for the external voting of American citizens abroad in the 2004 elections but a report prepared by the Department of Defense stopped the project (Jefferson, Rubin, Simons, & Wagner, 2004). The report concluded that the project should be halted and nothing similar should be attempted until “both the Internet and the world's home computer infrastructure have been fundamentally redesigned, or some other unforeseen security breakthroughs appear” (Jefferson, Rubin, Simons, & Wagner, 2004; Cain, Mac Donald, & Murakami, 2008).

Another dimension of e-voting also discussed in the literature is that people's trust in their governments and e-voting providers has a direct effect on e-voting (Mayer, Davis, & Schoorman, 1995). It is highlighted that the citizens trust does not only depend on how secure they think the e-voting technologies are but also how much they trust the people entrusted with establishing it, namely "government officials, politicians, legislators, and systems developers that enable and implement e-voting services" (Mayer, Davis, & Schoorman, 1995).

Experts have identified numerous security threats that could jeopardize the integrity of remote e-voting. Influence that can be exerted on voters to direct their votes through coercion, vote selling or vote soliciting are some of these threats (Rubin, 2000). Other major challenges include being able to successfully authenticate the identity of voters, shielding the system against hacker attacks either on the voting devices or the central election servers, as well as protecting the secrecy of the votes (McGaley M. , 2008). Additional difficulties also involve protecting the media between the voters' devices and the central elections server from possible interceptions and manipulation of the data being transferred (Rubin, 2000; Madise & Martens, 2006).

The cost of out-of-country voting is also another very important aspect to examine. Costs are significantly cut by computerizing the out-of-country voting system since staffing and training costs and the number of polling stations is decreased and this eventually decreases the cost per voter in the elections (Epstein, 2011; Braun & Brändli, 2006). Nonetheless, additional costs are added when e-voting is chosen, including training people to operate the system and constantly monitoring and upgrading it (Epstein, 2011). It is concluded however that internet voting experiments so far have had very low turnout rates, and thus the cost per voter has been very high (Madise & Martens, 2006).

### **3. Postal Voting**

Similar to all types of out-of-country voting, postal voting has its pros and cons. Supporters of this voting method indicate that it significantly reduces the administrative work in diplomatic missions compared to voting in person, in addition to allowing potential voters in countries that may not want to allow elections on their territory to participate (Grace, 2007). It also reduces administration costs since there is

no need for setting up election polling stations, involving extra staff, or training existing staff (Grace, 2007; Harris, 1999; Gronke & Miller, 2007). It is also argued that postal voting presents a better chance for more accurate counting of ballots, in addition to giving voters the chance to make a more thoughtful electoral decision (Gronke & Miller, 2007).

On the other hand, several disadvantages for the postal voting are highlighted by experts. One of the most significant threats associated with this type of voting is fraud by third parties (Harris, 1999; Grace, 2007). Using postal voting means that there will be a period of time when the ballots will not be under the supervision of the election staff and can therefore be intercepted and tampered with (Grace, 2007). Another major concern is the loss of secrecy compared to voting in person since polling stations usually guarantee that votes are cast privately and without the influence of third parties (Harris, 1999). This is very difficult to guarantee in postal voting.

One of the major goals behind implementing postal voting is to increase turnout since it is anticipated that voters who were incapable of or reluctant to travel to a polling stations would use postal systems (Gronke & Miller, 2007). Nonetheless, there is significant controversy regarding whether or not shifting to postal voting actually increases turnout and it is therefore hard to make generalizations (Kousser & Mullin, 2007; Borisjuk, Rallings, & Thrasher, 2010). While some studies show that postal voting does increase voter turnout, it is concluded that this increase is usually relatively limited, and that in any case the increase should not be expected to be higher than 10 percent (Luechinger, Rosinger, & Stutzer, 2007; Gronke & Miller, 2007). There is more agreement however on the notion that postal voting does encourage infrequent voters to participate rather than motivating new voters to take part in elections (Berinsky, 2005; Harris, 1999). It is also argued by others that switching to postal voting might have an effect on voter turnout rates only to the degree to which cost of voting is decreases (Solomon, 2009). It is therefore crucial to consider all other possible determinants while trying to identify the effect of shifting to postal voting compared to personal voting (Kousser & Mullin, 2007).

There are different subtypes of postal voting. In some countries, consulates and embassies abroad are not involved in the electoral process at all and votes are sent

directly to the relevant electoral bodies in the country of origin (Lafleur, 2011). In other cases, such as the case in the last parliamentary elections in Egypt, votes are sent to diplomatic missions in the country of residence and this is where the vote counting takes place and results are sent to the relevant electoral bodies in the sending state.

### **III. METHODOLOGY**

#### **A. Design Strategy and Framework**

A combination of quantitative and qualitative approaches was used in this study to determine which OCV system is most suitable for Egypt. The study was divided into four main parts as follows:

- a. An analysis was performed for the OCV system devised by the SJCE for the parliamentary elections in Egypt. This was carried out to identify the points of weakness and challenges witnessed and reported by both the administrators of the process and the voters. It was important to keep these points in mind while making the recommendation at the end of the study regarding the best aspects that should be applied to the chosen OCV method. A qualitative approach was used in this area of the study.
- b. In the second part of the study, the turnout rate in the OCV of different countries was examined and analyzed and linked to the voting systems used, in addition to other possible determinants. This analysis was performed for 36 elections. The aim was to try to find the system which guarantees the highest levels of turnout rates and to examine other possible determinants of turnout. A quantitative approach was used in this area of the study.
- c. In the third part of the study, available data about the cost of administering OCV in other countries and their relationship with the voting system used was investigated. Literature was also reviewed regarding the cost of different voting methods. The aim was to identify the cheapest OCV system. A qualitative approach was used on this area of the study.
- d. In the fourth part of the study, the security aspect of the four voting systems was examined. The goal was to determine which of the four voting systems is more secure. The assumption in this part of the study was that the only factor affecting security is the voting system chosen. A qualitative approach was used on this area of the study.

#### **B. Data Collection**

Semi-structured interviews were used to tackle the first area of the study, which is the analysis of the system set by the SJCE for the parliamentary elections of

2011/2012. Interviews were conducted with three categories of interviewees. The first category of interviews was with diplomats who took part in administering the OCV process in the Egyptian embassies abroad. These interviews were performed with members of 11 different Egyptian embassies in various regions of the world which had high turnout rates in the parliamentary elections. This was very helpful in knowing more about the process employed in addition to its weaknesses and the challenges they faced. Interviewing with this category were done over the internet.

The second category was with diplomats responsible for administering the out-of-country voting inside the Ministry of Foreign Affairs of Egypt and who were the main liaison between the Egyptian embassies abroad and the SJCE. They had considerable inside information that was crucial in understanding more about the positive and negative aspects of the process. Interview with this category was done face-to-face.

The third category of interviews was with citizens living abroad who have taken part in the out-of-country voting in the parliamentary elections. Interviews within this category were with 18 citizens; 10 of which live in the capital cities and thus delivered their votes in person to the missions, and 8 of which live in other cities and so had to mail their ballots. Voters living in various countries in different regions were chosen for these interviews. Interviews with this category were done over the internet.

Cross-country data concerning the turnout rates for elections in other countries as well as their cost were obtained for analysis from numerous sources including the relevant reports prepared by the International Institute for Democracy and Electoral Assistance (IDEA), European Election Database, OSCE reports about elections, and the electoral commissions of a number of countries.

Data concerning the cost and the turnout rates for the elections of some countries were also obtained by contacting the parliaments, chancelleries and the statistical office of these countries.

To determine the political climate and the trust of citizens in government the Civil Liberties Index introduced by Freedom House in addition to the Democracy Index and Political Stability Index both introduced by Economist Intelligence Unit

were employed. The United Nation's Human Development Index (HDI) was used to examine data concerning the educational and poverty levels. Additionally, The World Bank's literacy in adult population data was used. The World Bank's net migration data and migrant remittance inflows data were used in the quantitative analysis.

### **C. Limitations**

The study was based on information gathered about out-of-country voting for elections that took place on or before 2007 due to the lack of comprehensive consolidated information about OCV after that. One of the major sources of information for this study was the International IDEA handbook which included available information about out-of-country voting for 214 countries on or before 2007. This information was the basis for the study. Performing separate research about out-of-country voting for the same number of countries would have taken up too much time only to serve as the starting point for the research.

Initially there was an intention to obtain data regarding the cost of administering the out-of-country voting in other countries and to quantitatively analyze it. The aim was to reach empirical conclusions regarding which method of voting can be considered the cheapest. Nonetheless, it was difficult to obtain a sufficient amount of data that could allow for reaching reliable conclusions since costs of holding elections are usually calculated as a whole including in-country and out-of-country voting together. This aspect of the study was therefore analyzed qualitatively based on the literature written about this aspect of external voting and on some data obtained from the chancelleries and statistical offices of some countries.

The turnout rates studied in this research represented the number of external voters who voted from abroad as a percentage of the number of electors who registered to vote from abroad. Although this aspect is crucial to understanding how citizen participation in the external elections can be enhanced, it failed to look at how to encourage the increase in the number of citizens registering to take part in the elections. This would have been another vital facet to take into consideration; however, it would have been considerably difficult to look into this aspect since there is no sufficient data about the number of registered voters as a percentage of the number of citizens present in a given country and eligible to vote. Also, it would have

been hard to perform a comparative study about this because the conditions applied by governments to determine who is eligible to register for voting are too diverse and numerous. Therefore it would have been very difficult to account for the diverse variables affecting such a number.

Data about turnout rates for OCV in each host country separately was no available except for the Egyptian elections. Having this data would have allowed for analyzing why voter turnout rates are higher in some host countries compared to others even though all citizens come originally from the same country. It would have made it possible to draw conclusions concerning the effect of conditions in the host countries on the voting patterns of the expatriates.



## **IV. DATA ANALYSIS**

### **A. OCV Process Design and Registration Phase**

Interviews with knowledgeable MFA officials identified the following main aspects of the process design and registration phase:

- 1) The Egyptian Ministry of Foreign Affairs had been studying the comparative experiences of the other countries concerning out-of-country voting since March 2011, and was keen on disseminating these studies to the relevant authorities even before the establishment of the SJCE in July 2011.
- 2) MFA in cooperation with the IDSC (Information and Decision Support Centre affiliated to the Egyptian Cabinet of Ministers) and the Ministry of State for Administrative Development drafted a modality for voting by mail. Immediately after the ruling of the administrative court to enable Egyptians abroad to vote the MFA conveyed to the SJCE a clear preference to adopt the mail voting option due to political, security, and logistical reasons. The SJCE was also informed that the MFA had approved the design developed by IDSC and MSAD.
- 3) In due course, the SJCE approved the mail voting system to be used for the out-of-country elections. The main contribution of the SJCE in designing the process was deciding on the code of conduct that guarantees the legality of the process and securing it against appeals against election results based on the process.
- 4) The registration process for Egyptian citizens abroad consisted of the following steps:
  - i. A decision dated 7 November 2011 was issued by the SJCE to call upon Egyptian citizens living abroad to register for voting through the SJCE website during the period from 10 through 19 November 2011.
  - ii. An announcement containing detailed information about how and when to register was put up inside and outside the embassy premises to inform Egyptian voters.
  - iii. Egyptian embassies were instructed to offer help to voters unable to register on their own throughout the period of registration from 9 am till 8 pm including weekends.

- iv. Registration was only possible for citizens who had a valid Egyptian national ID issued before 27 September 2011.
- v. When registration was completed, a registration number was issued and given to the voter for future use during the elections process.
- vi. When the registration process was completed, each embassy was asked to secure a reasonable number of ballot boxes suitable for the number of registered voters in the country of accreditation.
- vii. The electoral district for each voter was specified according to the citizen's address in Egypt as detailed by the national ID. No seats were allocated to deputies representing Egyptian citizens abroad.

## **B. Election Process for OCV**

Interviews with knowledgeable MFA officials clarified that the OCV process implemented during the previous parliamentary elections was as follows:

- 1) The out-of-country voting was to be held in three phases, each having a second round for the runoffs, similar to what was applied in the in-country voting. Each phase included holding elections in 9 governorates. The first phase included Cairo, Fayoum, Port Said, Damietta, Alexandria, Kafr El Sheikh, Asyout, Luxor and Red Sea. The second phase included Giza, Bani Sweif, Al Monofeya, Al Sharkeya, Al Ismailia, Suez, Al Behera, Souhag and Aswan. The third phase included Al Menya, Al Kalyoubeya, Al Gharbeya, Al Dakahleya, North Sinai, South Sinai, Matrouh, Kena and New Valley.
- 5) The voting process for Egyptian citizens abroad consisted of the following steps:
  - i. A decision dated 21 November 2011 was issued by the SJCE outlining the out-of-country voting method to be employed for the parliamentary elections. Postal voting was identified as the only voting method accepted for the out-of-country voting.
  - ii. Although envelopes could be delivered to the embassies in person, a comprehensive personal voting system was not implemented. Citizen delivered the ballots to the embassies in closed envelopes, which were to be handled in the same manner as the ballots sent by mail.

- iii. It was decided for the first phase that only the Egyptian embassies abroad – not consulates general – would receive the ballots. However, starting from the second phase, it was decided that consulates in seven countries which have large numbers of Egyptian voters would receive the ballots in addition to the embassies. These countries were Saudi Arabia, United Arab Emirates, Australia, Canada, United States, Italy and France.
  - iv. Voters were asked to print their ballots online from the SJCE website using their registration numbers and national ID numbers. The ballots already corresponded to the voter's electoral district as identified by the registration number. The voter was asked to print all pages of the ballot, fill in the choices and put all pages of the ballots in an envelope that does not contain the name or address of the voter. Voters were then asked to write their electoral district on the back of the envelope.
  - v. A statement of voting from abroad was also to be printed from the SJCE website. The voter was asked to fill in his/her registration number on the statement and sign it. They were also asked to provide copies of documents proving their residence in the country in which they chose to vote. These documents included a residence permit, driver's license or valid student ID. Accordingly, citizens on short visits or stays in foreign countries were not allowed to vote.
  - vi. Voters were then asked to place the statement of voting from abroad and the residence document/s in another envelop along with the other closed envelop which contained the ballots. The envelope with all requested papers was then to be mailed to the embassy or handed in personally.
  - vii. For the first phase of the elections the ballots were to be available online for printing by voters on the SJCE website on 23 November 2011 and the deadline for receiving the envelopes in the embassies was 9 am on 26 November 2011. This left voters with only 3 days to print, fill out and mail the ballots, including time for transit within the country's postal system.
- 6) Administrative and organizational procedures carried out inside embassies regarding the voting process were as follows:

- i. After envelopes arrived at the embassies, staff did not open them until the deadline on 9 am on 26 November 2011. On that day, they opened all outer envelopes, took out the statement of voting filled out by voters, and checked the voters' information against the voter lists they had received from the SJCE containing the names of the eligible voters who registered through the website.
  - ii. The inner envelope was then put inside the ballot boxes inside the embassy and the box was sealed. According to the instructions, all envelopes were to be put inside the same ballot boxes without categorizing them according to the electoral districts. This was to be finished by the end of the 26 November 2011.
  - iii. A committee for monitoring the counting of votes was formed, consisting of the relevant members in the embassy staff and a number of representatives of the Egyptian communities abroad as well as representatives of the candidates and parties.
  - iv. On 27 November 2011 – one day before voting was scheduled to start in Egypt for the same phase – the ballots boxes were opened in the presence of the monitoring committee.
  - v. The envelopes were opened and stamped by the embassy seal and categorized by electoral districts. Correct votes were identified according to the conditions specified by the SJCE. Votes were then counted and registered in detail in SJCE approved forms.
  - vi. The results were sent to the Ministry of Foreign Affairs by 9 am on 28 November 2011. MFA then added up the results received from all over the world and forwarded these to the SJCE. The original printed ballots were shipped in special diplomatic pouches to the MFA to be delivered to the SJCE.
  - vii. On 25 November 2011, it was decided that all deadlines mentioned above would be postponed for a day after a decision was made that voting in-country would be prolonged for a day.
- 7) The same procedures mentioned above were repeated in the runoffs and the second and third phases.
  - 8) The approximate cost of implementing the out-of-country voting for around 218,000 voters was one million Egyptian pounds, somewhat less than a dollar

per vote. Administration costs were paid by the MFA, and at the time of writing this research, a process was underway to receive a refund from the SJCE as agreed before the beginning of the elections.

### **C. Turnout Data in the Egyptian Elections**

According to the available data, the total number of registered voters for all three phases combined was approximately 368,000 citizens (Appendix A). It can be noted that this number is very limited if compared to the total number of Egyptians living abroad. Official numbers indicate that around 2.7 million Egyptians live abroad, while unofficial estimates indicate that the number could be as high as 8 million. The official number implies that only 13.6 percent of Egyptians living abroad registered to vote in the parliamentary elections, while the unofficial number suggests that only 4.6 percent registered to vote. Either way, the number of registered Egyptians was significantly low.

Of the 368,000 Egyptians who registered to vote, around 142,655 registered in Saudi Arabia, 73,029 in Kuwait, 36,812 in the United Arab Emirates, 21,722 in Qatar, 20,604 in the United States and 9,236 in Canada. This clearly indicates that most Egyptians who registered to vote in the elections were those in the gulf countries, where the largest Egyptian communities reside (Figure 3).

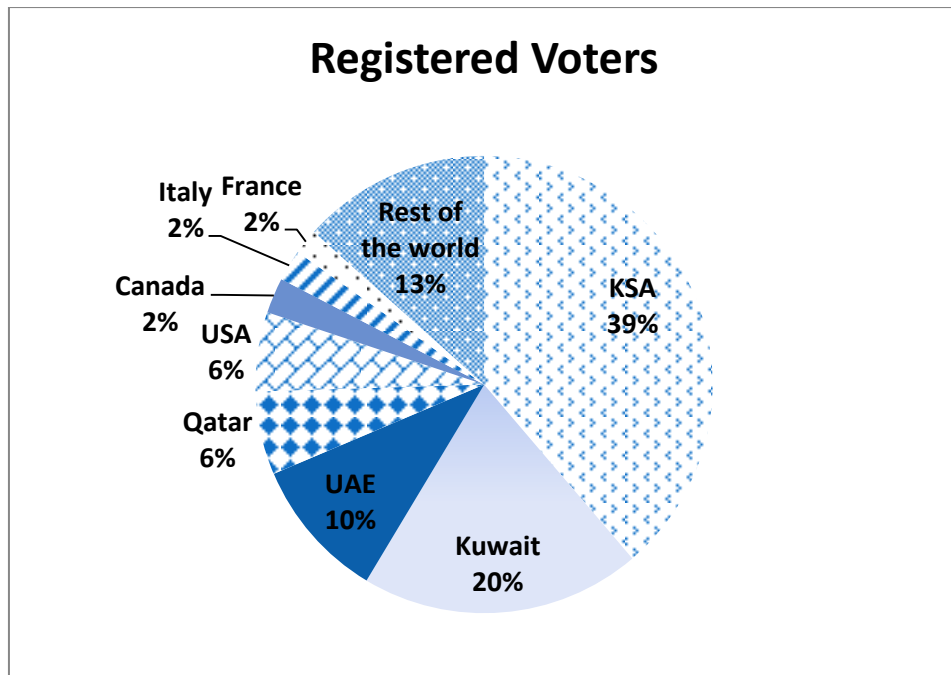


FIGURE 3 - DISTRIBUTION OF REGISTERED EGYPTIAN VOTERS (SOURCE: MFA)

Around 218,000 voters participated in the out-of-country voting in the parliamentary elections. The turnout rate for all phases and rounds of the elections was 59.3 percent of those registered. Of the 218,000 Egyptian who voted, 87,182 voted in Saudi Arabia, 50,718 in Kuwait, 18,248 in the United Arab Emirates, 15,390 in Qatar, 11,524 in the United States, and 5415 in Canada (Figure 4). It is evident therefore that the overwhelming majority of voters were again those resident in the gulf states.

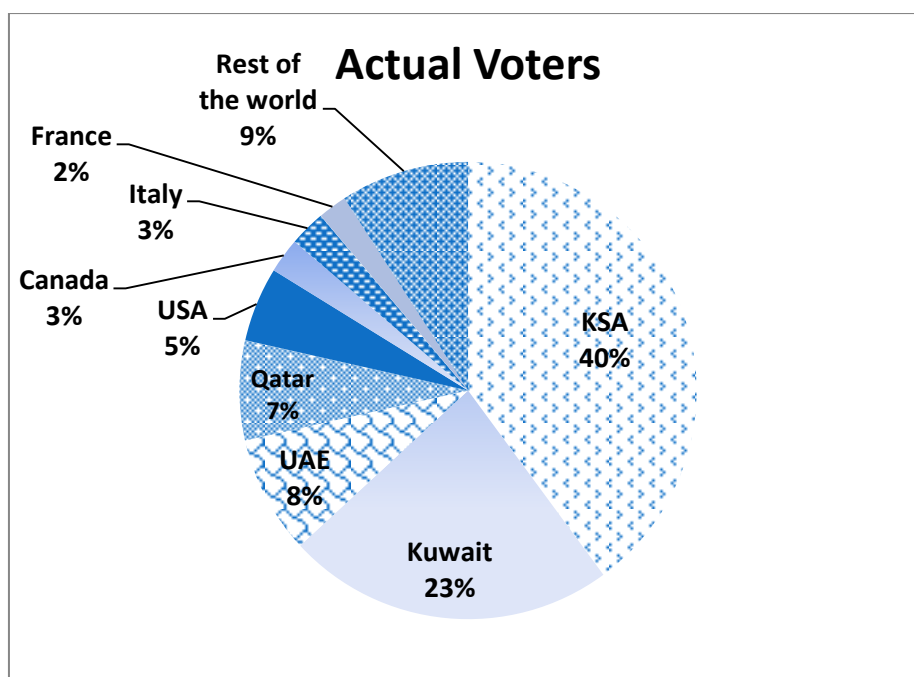


FIGURE 4 - DISTRIBUTION OF ACTUAL EGYPTIAN VOTERS (SOURCE: MFA)

Although it would have been expected that allowing consulates to receive ballots starting from the second phase would increase turnout rates in the second and third phases compared to the first phase, this was not the case. In most of the seven countries turnout rates decreased steadily from one phase to another (Table 4).

TABLE 4 - COMPARISON AMONG TURNOUT RATES (% OF ACTUAL VS. REGISTERED VOTERS) IN 2011 ELECTION PHASES (SOURCE: MFA)

Country	Turnout (%)		
	Phase I	Phase II	Phase III
<b>Saudi Arabia</b>	55.1	67.3	63.2
<b>United Arab Emirates</b>	66.6	34.6	26.6
<b>Canada</b>	60.5	58.4	33.1
<b>United States</b>	65.5	44.3	10.5
<b>Italy</b>	89	30.2	7.4

The turnout rates for out-of-country voters in the three phases of the election are shown below in figures 5-7 for countries which contain the largest number of Egyptian voters:

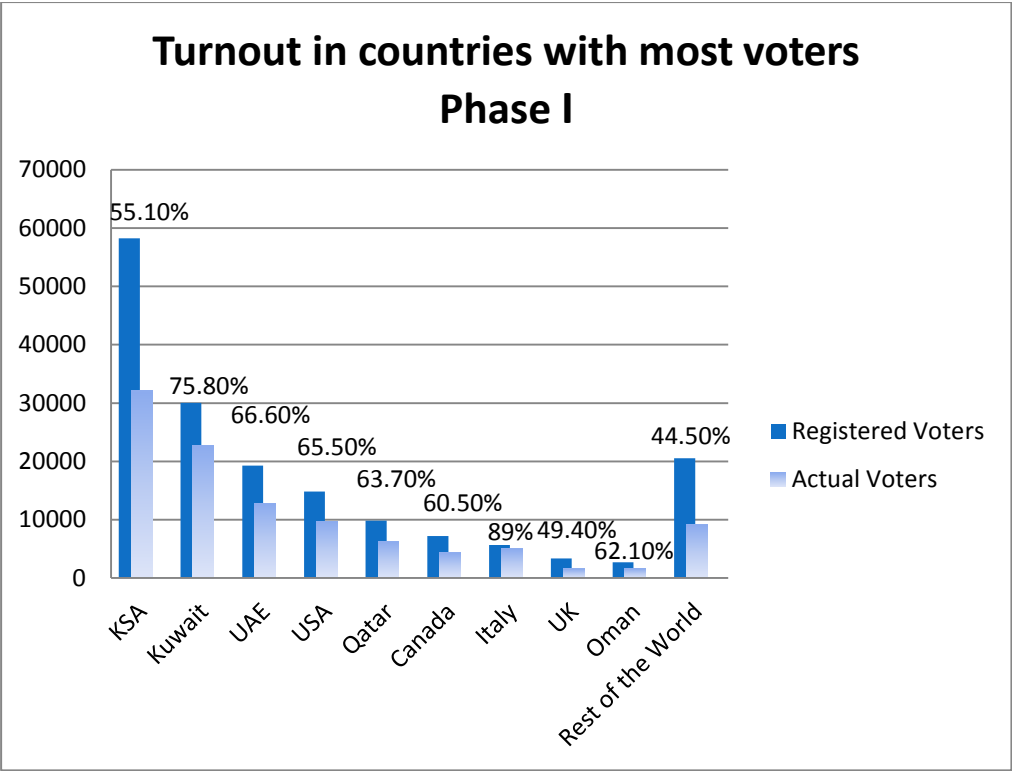


FIGURE 5 - SOURCE: MFA

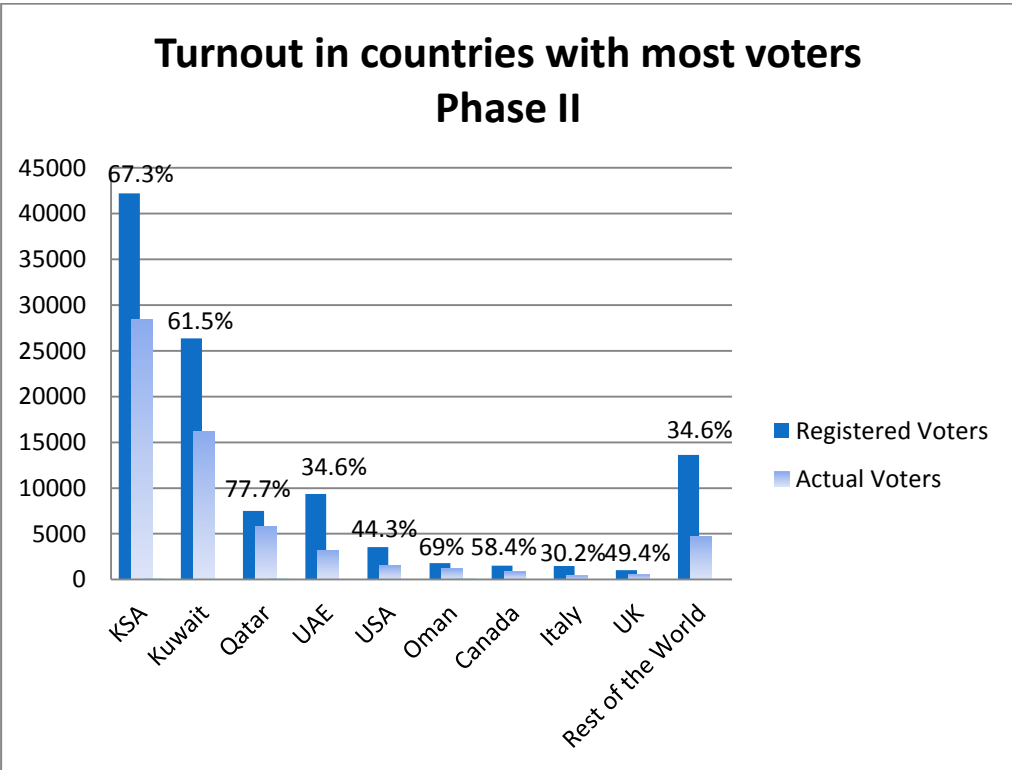


FIGURE 6 - SOURCE: MFA



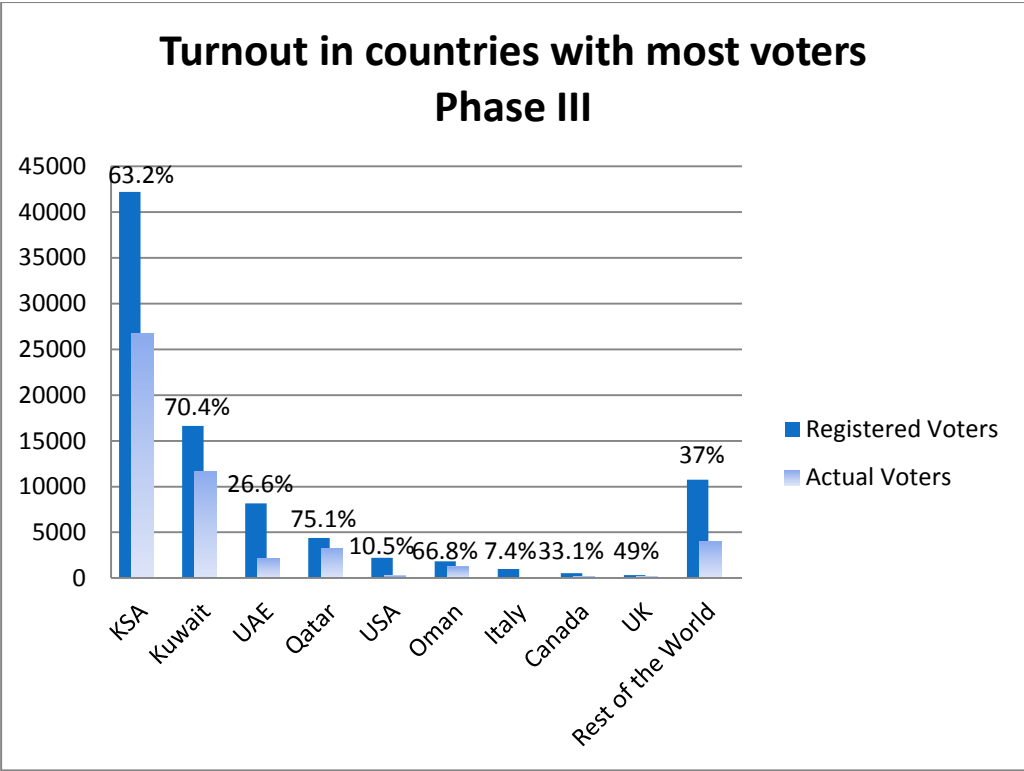


FIGURE 7 - SOURCE: MFA

#### **D. Problems and Comments Reported by Administrators**

- 1) The postal voting was viewed by the MFA officials to be the best option for conducting out-of-country voting for the following reasons:
  - i. The political infeasibility associated with the fact that a significant number of host countries have reservations regarding allowing a huge number of expatriate Egyptians to assemble to vote personally made in-person voting problematic because the needed licenses might not have been granted due to political and security reasons.
  - ii. The huge number of Egyptians in some countries, which is not matched by the needed personnel and logistical capacities of the diplomatic missions, made it hard to implement personal voting.
  - iii. The presence of huge Egyptian communities in countries with vast geographical size would have imposed heavy transport costs on voters under an in-person voting system; thus, postal voting was seen by officials as optimal to overcome this aspect.
  - iv. In terms of security, postal voting was a much more secure option compared to e-voting which is commonly renounced by almost all countries.
- 2) The major problems faced by administrators in the process were:
  - i. Instructions for embassy staff regarding the voting process were received only days before the start of the actual voting period. Therefore, they had insufficient time to direct questions about any ambiguities to the SJCE and to fully comprehend their role and responsibilities. For example, the voting method chosen for OCV and the relevant steps to be followed by both voters and administrators were announced only 2 days before the printing of ballots from the SJCE website was due to start. This also presumably caused problems on the voters' side, discussed below.
  - ii. No training of any kind was provided to diplomats administering the elections in the embassies which forced them to improvise in numerous situations.
  - iii. Instructions coming from the SJCE did not take into consideration the specificities of counting votes in embassies vis-à-vis counting votes in elections centers inside Egypt. Inside Egypt elections centers were assigned to count the votes for their relevant specific electoral district only. On the other hand, in embassies votes were cast by voters from all electoral districts of

Egypt and thus counting them was quite a different process if compared to the in-country process. Instructions arriving to embassies did not include articles on how this was to be handled.

- iv. There were no reliable continuous channels of communications between embassies and Egyptian citizens in the countries in which they are located. This limited the ability of embassies to inform Egyptian voters about any updates or urgent matters related to the voting procedures. Embassies had to depend on citizens' visiting the website of the SJCE periodically for updates or contacting the relevant embassy for information, which was not necessarily effective.
- v. Directives issued by the SJCE regarding the rights and responsibilities of citizens and candidate representatives who took part in monitoring the process of opening envelopes and counting the votes were imprecise and vague. The instructions for example stated that representatives should not be informed about the results of the elections in the embassy to avoid untimely disclosure of results. In practice this was hard to apply since it was very easy for them to figure out the results by just monitoring the process.
- vi. In some cases, when instructions from SJCE about some aspects of the voting process were ambiguous, judgment calls had to be made by the head of the diplomatic mission on how to handle such issues. Therefore, some aspects were handled differently in different embassies, especially when there was insufficient time to seek clarifications from the SJCE. This caused significant stress to heads of missions and diplomats involved since there were worries that such judgment calls could be used later on as bases for appeals against election results in their embassies.
- vii. Deadlines for receiving the envelopes in the embassies, and accordingly for every other step in process, were modified by the SJCE numerous times which caused significant confusion for embassies and for the voters. Since there were no reliable continuous channels of communications between embassies and Egyptian citizens it was difficult to propagate this information promptly to voters.
- viii. The number of diplomats and administrative staff in the embassies were very few compared to the number of voters, especially in some of the gulf countries, which made administering the elections very challenging.

- ix. Not enough time was given to diplomatic missions to engage with the expatriate communities to educate them about the precise rules and regulations of the voting process to reduce the number of void votes.
- 3) Administrators underlined that one of the potential loopholes in the system that could jeopardize the integrity of the votes is the fact that postal voting leaves ample room for collective voting. One person or entity can fill out the ballots on behalf of a group of voters after financially or psychologically coercing them. This possibility coupled with the fact that democratic practices and concepts are still fairly new to a large portion of Egyptian voters means that collective voting was an imminent threat to the integrity of the votes. Diplomats administering the voting process in some embassies noted that some of the ballots mailed together were completed in the same handwriting and with the same pen. These votes were considered valid votes since no clear stipulation was included in the regulations to suggest otherwise.
- 4) Most respondents believe that applying e-voting for the out-of-country elections would be the best option to guarantee an efficient voting process, despite the security concerns.

#### **E. Problems and Comments Reported by Voters**

- 1) The main problems reported by voters based on the interviews carried out with them were as follows:
  - i. Technical problems when they tried to access the SJCE website in the registration phase. Millions of Egyptian citizens all around the world tried to access the website throughout the course of only a few days to register in order to be eligible for voting. The website was not designed to withstand such pressure and so it failed to operate properly for hours at a time.
  - ii. Some Egyptian citizens complained that they did not know how to use the internet and therefore could not register. Egyptian embassy staff offered to help Egyptian citizens register either by answering their questions over the phone or by setting up computers in the embassies and receiving citizens specifically for this purpose.
  - iii. In some countries it was hard for citizens to depend on the flawed national postal services for the timely delivery of the envelopes containing the votes to

the embassies. This forced them to personally visit the embassy to hand in their envelopes. Some of them reside outside the capital cities and thus had to travel long distances to deliver the votes. In numerous instances, a voter was entrusted with travelling to the capital city where the embassy is located to deliver the ballots of dozens of voters.

- iv. The period of time specified for receiving the envelopes in embassies was quite short and in some countries it coincided with weekends and so postal services were not working. The time allocated for printing out the ballots, filling them out and sending them to the diplomatic missions was 3-4 days per round. Many envelopes therefore arrived to the embassies after the deadline. In other cases citizens had to use express postal services to guarantee their votes arrived on time and so had to pay relatively significant sums of money. Some voters reportedly paid up to \$50 to use express postal services.
- v. A large number of voters had problems in printing the ballots from the SJCE website. In some cases the website did not work properly because of the overload and so they had to try several times before they could successfully print it. Some were unable to print in and send it on time because of these technical problems. In other instances, the printed ballots were incorrect because they did not correspond to the voters' electoral district.
- vi. A significant number of voters reported that the voting process starting from registration till sending out the ballots in envelopes as instructed by the SJCE were too complicated. Significant confusion was caused for example by the instructions that two envelopes have to be used; one containing the ballot and one containing a form identifying the electoral district of the voter. This caused a considerable number of voters to make mistakes which nullified their votes, and discouraged others from voting altogether.
- vii. Most voters mentioned that registration should not have been allowed only for those with national IDs and that passports would have been enough especially that most second generation Egyptians living abroad do not have national IDs.
- viii. The lack of detailed widespread awareness campaigns among Egyptian expatriates about how to fill out the ballots and how to send in the votes caused large numbers of votes to be nullified. Directives were not clear enough and were not spread enough.

- ix. The need to present a document proving legal residence in the country (residence permit, driver's license, student ID ...etc.) to have a valid vote deprived illegal immigrants from participation.
- 2) Most interviewed voters stated their belief that applying remote e-voting would have been the best option to guarantee higher turnout rates. More than half the respondents mentioned that they felt anxious that their vote might not arrive on time and some even feared that they might not reach the embassy at all.
- 3) Approximately 40 percent of citizens mentioned that a hybrid system of postal and personal voting would have increased turnout rates especially in countries where a large number of Egyptian citizens are illiterate. This would have made it easier for them to register and vote even if they did not know how to read and write, mirroring the in-country voting system.
- 4) Although most interviewed voters were generally satisfied with their first OCV experience, they all believe that a lot still needs to be done to make it a successful experience.

## **F. Comparative Cross-country Data Analysis**

A multiple linear regression model was adopted to determine whether or not the turnout rate is affected by the implemented voting method and to explore possible determinants of the turnout rate. The model used relevant cross-country data resulting from elections throughout the years from 2000 to 2011. Turnout rates in 36 elections were obtained and analyzed through the model. Postal voting was used in 7 of the elections, personal voting was used in 20, and hybrid (postal + personal) was used in 9.

Available data about the turnout in out-of-country elections were not enough to examine the turnout rates when other election methods (proxy and e-voting) or other hybrid systems are implemented. This can be attributed to the fact that those studied are the three most used systems for out-of-country voting as shown before (section 2.1). Around 49 percent of countries that allow voting from abroad use personal voting, while 23 percent use postal voting and 11 percent use a combination of postal and personal, for a total of 83 percent of the 110 countries for which data was available.

Independent variables used in the analysis can be divided into two main categories. The first is the set of determinants associated with the political climate and the population inside the countries of origin which are the democracy index and the percentage of rural population. The other set of determinants are those directly related to expatriates such as the number of immigrants and the remittances they send back to the country of origin, which might indicate the degree of their connection with their country of origin.

Results of the dataset assembled from these variables was analyzed using the following model:

$$y = \beta_0 + \beta_1 x_1 + \dots + \beta_n x_n + e$$

*Where y is the turnout rate and  $X_i$  are the determinants (Table 5)*

TABLE 5 - POSSIBLE DETERMINANTS FOR TURNOUT

	<b>Independent Variables</b>
<b>X<sub>1</sub></b>	Postal Voting [1: Postal, 0: Personal or Hybrid(Personal + Postal)]
<b>X<sub>2</sub></b>	Personal Voting [1: Personal, 0: Hybrid(Personal + Postal) or Postal]
<b>X<sub>3</sub></b>	Net Migration [the total number of immigrants less the annual number of emigrants]
<b>X<sub>4</sub></b>	Remittances [in gross dollars]
<b>X<sub>5</sub></b>	Democracy Index

When the linear regression and correlation were run the results in tables 6 and 7 were shown:

TABLE 6 SIGNIFICANCE OF DETERMINANTS OF TURNOUT

<b>Independent Variable</b>	<b>Coefficients</b>	<b>t-value</b>	<b>p-value</b>
Postal Voting	0.524	4.282	0.000

Personal Voting	0.285	2.847	0.008
Migration	3.075E-008	0.688	0.497
Rural Population (% of total population)	0.002	0.723	0.476
Democracy Index	0.003	0.072	0.943
<b>R Square: 0.469</b>			
<b>F Value: 5.12</b>			

TABLE 7 - PEARSON CORRELATIONS

	Turnout Rate	Postal Voting	Personal Voting	Migration	Rural Population	Democracy Index
Turnout Rate	1					
Postal Voting	.475	1				
	.003					
Personal Voting	-.188	-.549	1			
	.272	.001				
Migration	-.262	.050	-.056	1		
	.122	.772	.744			
Rural Population	-.033	-.075	.259	-.142	1	
	.850	.663	.127	.409		
Democracy Index	-.217	-.013	-.300	.398	-.641	1
	.203	.941	.076	.016	.000	

The model yielded an  $r^2$  at 47 percent which indicates an appropriate model fit. The coefficients for postal and personal voting are significant at 5 percent level. Results suggest that the turnout rate when using postal voting would be around 52.4 percent and would be around 28.5 percent when personal voting is used. The results are statistically significant. It can therefore be concluded that postal voting increases turnout rates in OCV.



The results also suggested that all other independent variables related to circumstances inside Egypt (democracy index - percentage of rural population) are statistically insignificant. This can be explained by the fact that expatriates live in other countries with different characteristics and conditions than their home country and therefore such variables associated with the country of origin are not relevant to their voting patterns. Results also suggested that the number of migrants leaving a country doesn't significantly affect that turnout rate in OCV.

Prior studies have even shown that there is no significant statistical correlation between internal characteristics such as a country's literacy rate, for example, and its voter turnout rate in the in-country elections (What affects turnout?). If this has been proven for in-country elections, it is safe to conclude that it can be applied for similar characteristics in out-of-country voting.

The correlation performed between the variables (table 7) shows a slight positive correlation between the postal voting and turnout rate ( $r= 0.475$ ). The results also show a slight negative correlation between postal and personal voting ( $r= -0.549$ ). Finally, there is also a slight negative correlation between the democracy index and the percentage of rural population in a given country ( $r= -0.641$ ).

It is important to note however that in some countries, turnout in OCV has decreased steadily over the years. This could indicate that when the novelty of OCV wears off, turnout rates could decrease. In the case of Portugal for example, evidence shows that the turnout rates in the out-of-country voting in legislative elections have been falling almost steadily since 1976 (Ellis & Wall, 2007). It has fallen from 86.7 percent in 1976 to 25.2 percent in 2005 (Table 8).

TABLE 8 - OVERSEAS TURNOUT IN PORTUGUESE LEGISLATIVE ELECTIONS (SOURCE: IDEA)

<b>Election Year</b>	<b>Turnout (%)</b>
<b>1976</b>	86.7
<b>1979</b>	66.8
<b>1980</b>	61.6
<b>1983</b>	45.3

<b>1985</b>	30.1
<b>1987</b>	26.5
<b>1991</b>	32.6
<b>1995</b>	23.5
<b>1999</b>	23.8
<b>2002</b>	24.4
<b>2005</b>	25.2

It can be concluded that it is difficult to identify any determinants of the turnout rate other than the voting method used. Turnout, for example, might be influenced by specific conditions or incidences that take place inside or outside the country on election day/s, which might be hard to examine statistically. Such conditions could for example include having a close election race or certain conditions in host countries. This could be a rich area for future study.

### **G. OCV Cost and Security Analysis**

Concerning the cost of administering e-voting, the information received from the Elections Department in the Chancellery of the Estonian Parliament (Riigikogu) confirmed the conclusions drawn from the literature. As mentioned earlier in the literature review (section 2.2), during the early stages of applying e-voting additional costs will have to be borne, but costs are significantly cut in later stages because the staffing and training costs of personnel need not be repeated and the number of polling stations can be decreased and this naturally decreases the cost. Data received about administering out-of-country voting for the Riigikogu elections in Estonia in 2007 indicated that 3251 Estonians voted from abroad in these elections and the cost of administering the elections per voter was calculated to be 11.4 Euros, far above the estimated cost in Egypt. In these elections Estonia implemented a hybrid system of out-of-country voting which included postal, personal and e-voting. The Chancellery reported that the cost for e-voting on the other hand per voter in these same elections was only 1.7 Euros. Therefore, applying e-voting instead of postal and personal

voting significantly reduced the costs of administering the out-of-country voting in Estonia.

In Switzerland the Federal Chancellery has carried out several pilot trials since 2003 to assess the feasibility of remote e-voting (Braun & Brändli, 2006). It was estimated based on data gathered from the implementation of these pilot projects that the financial cost for developing and operating an e-voting system for elections and referenda can amount to 15 million Swiss francs (approximately 15.8 million US dollars) (Braun & Brändli, 2006). This sum includes operation and maintenance costs for ten years in addition to the cost of hiring staff and service costs (Braun & Brändli, 2006). If it is assumed that around 1 million voters will use the system, the cost per vote would be less than half a Swiss franc and would therefore be more cost-effective than postal voting (Braun & Brändli, 2006).

In Egypt, however, a significant portion of the population would have difficulty using the internet to vote if it were selected as the only voting method available for external voters. The elderly, illiterate and citizens lacking computer skills would find it inconvenient to use internet voting and therefore it can be expected that a considerable percentage of them might choose not to vote. Knowing this, decision makers in Egypt would not be able to implement e-voting as the only voting method since it would deprive a large fraction of expatriates of their right to vote. They will, therefore, find it inevitable to provide traditional voting facilities to those who do not have internet access or do not feel comfortable handling e-voting. Traditional voting methods can in this case be implemented alongside e-voting or without it. Thus, viewing e-voting as the cheapest voting method to administer out-of-country voting is not feasible since it cannot be applied on its own.

It has also become clear from the literature written on the security aspect of applying e-voting (section 2.2) that although a few countries have attempted to implement e-voting as an option for out-of-country voting, no country has resorted to implementing e-voting for external voting on a full-scale basis or as the only alternative for external voting. This has been the result of numerous studies that have concluded that remote e-voting is not a sufficiently secure method of voting to date.

So far, although numerous countries have been applying e-voting in in-country voting, very few countries allow external voters to remotely cast their votes

electronically (Ellis & Wall, 2007). Until 2007 only Estonia and the Netherlands applied hybrid systems for external voting which included e-voting along with other voting alternatives such as personal and postal voting (Ellis & Wall, 2007). Therefore, until 2007, remote e-voting had not been implemented by any country as the sole means of voting from abroad.

## **V. FINDINGS AND CONCLUSIONS**

It can be concluded from the study that postal voting is the second cheapest out-of-country voting method to administer, following e-voting. It also provides for an extensive reach, since citizens in all cities can use it to send their votes to diplomatic missions instead of having to go all the way to the capital cities where Egyptian embassies are located. Therefore it has the potential to lead to significantly higher turnout rates compared to other out-of-country voting methods.

The transparency of the postal voting process cannot be guaranteed since citizens do not get the chance to actually witness their ballots being secured inside the ballot boxes as in personal voting. The integrity of the votes is also hard to ensure since undue pressure can be exerted on voters away from the oversight of government representatives. Possible influences affecting voters can include coercion, selling or soliciting votes. It should be noted that this can also happen in-country, as long as it is implemented away from the polling places.

Although personal voting in diplomatic missions guarantees the highest level of transparency of the voting process and the maximum amount of vote integrity, it is an expensive endeavor with limited outreach. It is costly since extra expenses need to be added for aspects such as securing the voting premises, renting the voting sites where needed and employing additional staff for election administration. In countries such as Saudi Arabia where it is estimated that 1.5 million Egyptians live, renting sites for voting would have been required and thus quite costly. In any case, the turnout rates for personal voting are not expected to be as high as those for postal voting since a significant number of eligible voters live in cities other than those where diplomatic missions exist and not all other locations could be covered even if renting facilities was undertaken.

It has been proven that remote e-voting is the cheapest method to employ in out-of-country voting over the long run. Even though the initial cost of implementing e-voting is significantly higher than other traditional methods, it can save considerable amounts of administration costs in the long run. This type of voting also guarantees the best availability and outreach among specific segments of Egyptian citizens living abroad. It is accessible worldwide but it can be anticipated that a significant portion of Egyptian citizens living abroad would not be encouraged to take part in e-voting.

Entire categories of citizens residing abroad, such as the elderly and the technologically illiterate, would inevitably be discouraged from exercising their right to vote if such a voting method were employed.

The security aspect of remote e-voting is a critical issue which experts from all over the world are still trying to handle. This aspect obliged most countries to resort to traditional voting rather than e-voting despite the latter system's apparent advantages.

According to available data about the previous Egyptian parliamentary elections, there is a need not only to raise the turnout rates among overseas citizens but also to increase the number of registered voters. At best, the number of registered Egyptian voters in the OCV for the parliamentary elections was only 13.6 percent of Egyptians living abroad.

Cross-country comparative data analysis about turnout rates in OCV indicates that the only determinant that can be directly associated with turnout among those studied is the type of voting method implemented. It has been shown that postal voting yields the highest turnout rates. It can be anticipated based on the experiences of several countries that turnout rates in OCV could gradually decrease when the novelty of the system wears off.

The efforts to identify determinants of turnout other than the voting method used were not successful. Other factors should be examined in future studies. For example, turnout could be influenced by specific conditions or incidences that take place inside or outside the country on election day/s, although these might be hard to examine statistically. Such conditions could for example include having a close election race or certain conditions in the host countries.

One of the major problems identified in the OCV process implemented for the Egyptian parliamentary elections was the limited time allocated to voters and administrators to be informed about and conclude every stage of the process.

Additionally, the fact that decisions concerning the registration and voting processes were always taken a very short time before the actual processes were due to start caused considerable confusion. This suggests a need to allow more time and support for training prior to the election dates to prepare both administrators and voters for the process.

## **VI. POLICY IMPLICATIONS AND RECOMMENDATIONS**

Based on the interviews carried out with administrators and voters and the relevant literature reviewed, suggestions for modifications in the current OCV process designed and implemented include:

- i. Providing appropriate training by professionals to diplomats about the Egyptian electoral process designed for out-of-country voting in addition to the general administrative and legal aspects related to elections in general. This could be a basic part of their training before they start their work in a new embassy or consulate, but should also be updated close to the election.
- ii. Detailed manuals tackling the process of out-of-country voting should be prepared and provided to embassies long before the actual process begins and any modifications should be promptly propagated to embassies.
- iii. A more effective means of communication has to be established between the SJCE and Egyptian citizens abroad through which the committee can inform citizens about updates related specifically to them through e-mails, such as information regarding their specific electoral district or the election dates for their phase. This would help in quickly and consistently handling problems arising during the process across embassies.
- iv. Elongating the period of time specified for receiving the envelopes in embassies to allow citizens to use ordinary postal services to send their votes instead of having to spend more money on express postal services.
- v. Expanding the period of time specified for online registration to avoid congestion on the website and to allow ample time for citizens to seek help regarding the registration process.
- vi. Although postal voting is the most suitable system to be used, one of its major drawbacks is the cost born by the voter to mail the vote back to the diplomatic mission, especially if it has to be done by express mail. To overcome this problem, a system can be devised whereby ballots can be sent to diplomatic missions at no cost for the voter in prepaid envelopes paid for by the Egyptian government. If such a system is not present in one of the countries, other means can be sought through negotiations with postal service companies in these countries to identify the best possible option.

- vii. Proxy voting should be allowed as another option for OCV in future elections. In this case, a hybrid system containing postal and proxy voting would be allowed. Proxy voting would incur almost no additional administration costs, and at the same time could increase turnout rates.
- viii. The condition that only Egyptian citizens who have a valid national ID have the right to register for voting abroad should be eliminated. Such a condition significantly limits the numbers of citizens who are eligible to vote abroad, especially given that a large number of Egyptian expatriates have never been issued a national ID and have not visited Egypt for years. This can be replaced by using the Egyptian passport for registration.
- ix. The condition that voters have to submit copies of documents proving their residence in the country in which they chose to vote should also be eliminated. Allowing citizens on short visits to foreign countries to vote is likely to increase the number of registered voters and the turnout rates.
- x. All Egyptian diplomatic missions abroad should be involved in receiving mailed votes and citizens handing in their votes personally as a rule, not just the embassies. Although it was shown that such a step would not necessarily increase turnout, it would make the job of embassy staff much easier, especially in countries in which large numbers of Egyptians live such as the United States, Australia and Canada. In the United States for example there are four Egyptian consulates general (Los Angeles, New York, Houston and Chicago), in addition to the embassy in Washington. Only the embassy in Washington was involved in the first phase of the elections. It is crucial that this be clear to all citizens right from the beginning of the elections and it should be applied to all phases since changing the rules from one phase to another in the previous elections caused considerable confusion to citizens.
- xi. A permanent Egyptian electoral committee should be formed to handle matters related to all Egyptian elections instead of the current case where ad hoc committees are formed for each election. Having a permanent committee would allow for sustaining accumulated knowledge and lessons learned about the election processes in-country and out-of-country.
- xii. Laws and regulations related to OCV should indicate the types of elections in which OCV will be allowed in the future. At the time of writing this research the Egyptian presidential election was due to start in a few days and it was



announced that OCV would be allowed. It is therefore clear that OCV would be allowed in the parliamentary and presidential elections in Egypt. Nonetheless, it is still not clear whether or not referenda and sub-national elections will include OCV.

- xiii. It has been shown by this research that postal voting is the option more likely to lead to higher turnout rates in OCV, and e-voting is the cheapest voting method, while personal voting is the most secure option.
- xiv. It can also be concluded from the findings that e-voting and personal voting are not viable options to be implemented in the Egyptian context as explained before. Findings have also suggested that postal voting is the second cheapest method after e-voting. In terms of security, no predispositions have been identified about the four different voting types expect that personal voting is the most secure option, while e-voting is the most risky.
- xv. Finally, it is the conclusion of this research that postal voting is the most suitable option for the Egyptian elections, but modifications have to be implemented on the system that has already been devised and implemented in the previous parliamentary elections.

## REFERENCES

- Different views of evoting – The Geneva Internet Voting System*. (2005, October). Retrieved April 11, 2012, from State of Geneva web site: <http://www.geneve.ch/evoting/>
- Aarts, K., & Wessels, B. (2002, August 28). *Electoral Turnout in West-European Democracies*. Retrieved from All Academic Research: [http://citation.allacademic.com/meta/p\\_mla\\_apa\\_research\\_citation/0/6/6/2/1/p66213\\_index.html](http://citation.allacademic.com/meta/p_mla_apa_research_citation/0/6/6/2/1/p66213_index.html)
- Bauböck, R. (2005, October). Expansive Citizenship: Voting beyond Territory and Membership. *PS: Political Science and Politics*, 38(4), 683-687.
- Berinsky, A. J. (2005). The Perverse Consequences of Electoral Reform in the United States. *American Politics Research*, 471-491.
- Borisjuk, G., Rallings, C., & Thrasher, M. (2010). Much Ado about Not Very Much: The Electoral Consequences of Postal Voting at the 2005 British General Election. *The British Journal of Politics and International Relations*, 12, 223-238.
- Braun, N., & Brändli, D. (2006). Swiss E-Voting Pilot Projects: Evaluation, Situation Analysis and How to Proceed. In R. Krimmer (Ed.), *Lecture Notes in Informatics*, (pp. 26-36). Bregenz, Austria.
- Cain, B. E., Mac Donald, K., & Murakami, M. H. (2008). Administering the Overseas Vote. *Public Administration Review*, 802-813.
- Collyer, M., & Vathi, Z. (2007). *Patterns of Extra-territorial Voting*. Brighton: Sussex Centre for Migration Research.
- Ellis, A., & Wall, A. (2007). *Voting from abroad: The International IDEA handbook*. Stockholm, Sweden; Mexico City, Mexico: International IDEA.
- Epstein, J. (2011). Internet Voting, Security, and Privacy. *William & Mary Bill of Rights Journal*.
- Grace, J. (2007). *Challenging the Norms and Standards of Election Administration: External and Absentee Voting*. Retrieved April 10, 2012, from International Foundation for Electoral Systems: <http://www.ifes.org/>
- Gronke, P., & Miller, P. A. (2007). Voting by Mail and Turnout: A Replication and Extension. *Reed College and Early Voting Information Center*. Chicago: Paper presented at the Annual Meeting of the American Political Science Association.
- Hall, T., & Alvarez, M. (2004). *American Attitudes about Electronic Voting Results of a National Survey*. Utah: Center for Public Policy & Administration, University of Utah.
- Harris, R. (1999). *Voting-By-Mail: A Look at Modernizing the Electoral System*. California Research Bureau.
- Itzigsohn, J. (2000). Immigration and the Boundaries of Citizenship: The Institutions of Immigrants' Political Transnationalism. *International Migration Review*, 34(4), 1126-1154.

- Jefferson, D., Rubin, A. D., Simons, B., & Wagner, D. (2004, January 20). *A Security Analysis of the Secure Electronic Registration and Voting Experiment (SERVE)*. Retrieved March 21, 2012, from <http://www.servesecurityreport.org/>
- Jukic, T., & Vintar, M. (2006). E-Voting in Slovenia: The view of parliamentary deputies. In R. Krimmer (Ed.), *Lecture Notes in Informatics*, (pp. 237-248). Bregenz, Austria.
- Karp, J. A., & Banducci, S. A. (2001). Absentee Voting, Participation, and Mobilization. *American Politics Research*, 183-195.
- Kousser, T., & Mullin, M. (2007). Does Voting by Mail Increase Participation? Using Matching to Analyze a Natural Experiment. *Political Analysis*, 428-445.
- Lafleur, J.-M. (2011). Why do states enfranchise citizens abroad? Comparative insights from Mexico, Italy and Belgium. *Global Networks*, 481-501.
- Lemos, R. (2004, January 22). *E-voting 'risks fraud'*. Retrieved December 19, 2011, from ZDNet: <http://www.zdnet.co.uk/news/security-management/2004/01/22/e-voting-risks-fraud-39119276/>
- Levitt, P. (2001). Transnational migration: taking stock and future directions. *Global Networks*, 1(3), 195-216.
- Luechinger, S., Rosinger, M., & Stutzer, A. (2007). The Impact of Postal Voting on Participation: Evidence for Switzerland. *Swiss Political Science Review*, 167-202.
- Madise, Ü., & Martens, T. (2006). E-voting in Estonia 2005: The first practice of country-wide binding Internet voting in the world. In R. Krimmer (Ed.), *Lecture Notes in Informatics*, (pp. 15-26). Bregenz, Austria.
- Mascitelli, B., & Battiston, S. (2009). Challenging the Australian Government Approach Towards Expatriate Voting: The Case of Italy. *Australian Journal of Political*, 513-519.
- Mayer, R., Davis, J., & Schoorman, D. (1995). An integrative model of organization trust. *Academy of Management Review*, 709-34.
- McGaley, M. (2008). E-voting: An Immature Technology in a Critical Context. *Ph.D. dissertation, Dept. of Computer Science, NUI Maynooth*.
- McGaley, M., & McCarthy, J. (2004). Transparency and e-Voting: Democratic vs. commercial interests. *Electronic Voting in Europe*, pp. 153-163.
- Qvortrup, M. (2005). *Absentee Voting in a Comparative Perspective: A Preliminary Assessment of the Experiences with Postal Voting*. The Joint Standing Committee on Electoral Matters, Australian Federal Parliament.
- Rubin, A. (2000). *Security Considerations for Remote Electronic Voting over the Internet*. Retrieved 3 22, 2012, from <http://avirubin.com/e-voting.security.pdf>
- Schaupp, C., & Carter, L. (2005). E-voting: from apathy to adoption. *Journal of Enterprise Information Management*, 586 - 601.
- Solomon, D. (2009). Voter Turnout with Postal Voting. *Oxonomics*, 4(1), 42-49.

Thomas, J. C., & Streib, G. (2003). The New Face of Government: Citizen-Initiated Contacts in the Era of E-Government. *Journal of Public Administration Research and Theory*, 83-102.

*What affects turnout?* (n.d.). Retrieved April 13, 2012, from Institute for Democracy and Electoral Assistance: [http://www.idea.int/vt/survey/voter\\_turnout8.cfm](http://www.idea.int/vt/survey/voter_turnout8.cfm)

**APPENDIX A – TURNOUT RATE PER COUNTRY IN THE  
EGYPTIAN PARLIAMENTARY ELECTIONS**

<b>Country</b>	<b>Registered Voters</b>	<b>Actual Voters</b>	<b>Turnout (%)</b>
Saudi Arabia	142655	87182	61.0
Kuwait	73029	50718	69.4
United Arab Emirates	36812	18248	49.6
Qatar	21722	15390	71.0
United States	20604	11524	56
Canada	9236	5415	58.6
Italy	8149	5576	68.4
France	6568	4494	68.4
Oman	6344	4150	65.4
Australia	6066	789	13.0
United Kingdom	4705	2372	50.4
Bahrain	3563	2168	60.8
Jordan	2272	1227	54.0
Germany	2180	1043	47.8
Greece	1702	910	53.5
Netherlands	1535	611	40.0
Sudan	889	384	43.2
Switzerland	787	462	58.7
Sweden	711	301	42.3
Algeria	662	499	75.4
Belgium	508	276	54.3
Lebanon	508	280	55.1
Afghanistan	423	317	75.0
Cyprus	415	180	43.4

Ireland	361	210	58.1
Japan	302	172	57.0
South Africa	296	204	69.0
Norway	295	52	17.6
Malaysia	292	153	52.4
Denmark	242	136	56.2
China	229	156	68.1
Yemen	228	139	61.0
Spain	219	81	37.0
New Zealand	192	53	27.6
Morocco	191	62	32.5
Hungary	184	76	41.3
Nigeria	166	69	41.6
Russia	151	61	40.4
Turkey	131	78	59.5
Ghana	120	97	80.8
Tunisia	120	72	60.0
Niger	117	36	30.7
Finland	109	59	54.1
Djibouti	107	102	95.3
Senegal	102	96	94.1
Chad	100	88	88.0
India	91	31	34.0
Kenya	89	68	76.4
Czech Republic	88	58	66.0
Zambia	87	69	79.3
Malta	83	64	77.1

Romania	75	44	58.6
Syria	74	55	74.3
Brazil	73	21	28.7
Azerbaijan	73	34	46.6
Iraq	73	18	24.6
Poland	71	37	52.1
South Korea	69	27	39.1
Pakistan	66	56	84.8
Singapore	66	52	78.8
Albania	62	27	43.5
Kazakhstan	61	10	16.4
Mexico	59	7	11.8
Israel	59	35	59.3
Cameroon	57	31	54.4
Indonesia	54	22	40.7
Argentina	52	1	2.0
Tanzania	52	42	80.7
Portugal	51	18	35.3
Thailand	50	34	68.0
Palestinian Territories (Ramallah)	49	7	14.3
Ukraine	49	31	63.3
Uganda	46	35	76.0
Congo	42	28	66.6
Ethiopia	42	24	57.1
Bangladesh	40	37	92.5
Gabon	40	34	85.0
Estonia	39	Zero	Zero

Malawi	37	19	51.3
Mali	36	33	91.6
Mauritania	33	31	94.0
Angola	28	17	60.7
Bulgaria	28	22	78.6
Croatia	27	3	11.1
Zimbabwe	27	23	85.2
Slovakia	26	23	88.5
Bosnia and Herzegovina	25	16	64.0
Somalia	24	Zero	Zero
Namibia	23	17	74
Iran	22	16	72.7
Benin	21	14	66.6
Mozambique	21	20	95.2
Philippines	21	10	47.6
Rwanda	20	17	85.0

APPENDIX A: SOURCE MFA