SOCIAL MEDIA USE AND POLITICAL BEHAVIOR OF IRANIAN UNIVERSITY STUDENTS AS MEDIATED BY POLITICAL KNOWLEDGE AND ATTITUDE

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ABSTRACT

Social Network Sites (SNSs) are online communities where users connect to the people within their social circle or beyond it. The variety of services available in SNSs and their widespread and increasing influence as an information source and their position in the people contact has increased the number of researches on the behavior of people in the social network sites. The current research studied the relationships between the use of selected social network sites (Twitter and Facebook) and political knowledge, attitude and behavior of Iranian university students. The thesis is conducted in a mixed mode quantitative-qualitative mode of study and selected the sample of Iranian university students to collect quantitative data through a questionnaire followed by an emailed interview with lecturers and media experts. This study employed survey research design and a structured questionnaire as a means of data collection for quantitative level. The sample size in the study consisted of 382 Iranian students and 12 media experts. The findings of the current study showed that there is generally a direct and positive relation between the level of use of social networks and political knowledge, attitude and behavior. The results showed that when there is a moderate level of participation in the society, the level of political knowledge and activities are also moderate. Thus, it is probable that in the societies rather than Iran with higher levels of social participation in civil society, people have higher levels of political behavior. The findings of the study also helps the decision makers to manage the social networks in a proper and efficient way so that corrupted groups cannot downgrade the healthy stream of political participation. The current study also showed the moderation in the different sectors of the students, thus government can have a positive picture of the opposing ideas.

Keywords: social network site, political knowledge, political attitude, political behavior, Iranian university students

ABSTRAK

Laman Rangkaian Sosial (SNSs) adalah komuniti dalam talian di mana penguna boleh berhubung dengan orang lain dalam lingkaran sosial mereka atau luar dari itu. Pelbagai perkhidmatan yang disediakan di dalam SNSs dan penyebaran serta peningkatan pengaruh dalam mendapatkan sumber informasi dan juga untuk berhubung dengan orang lain telah meningkatkan jumlah kajian dalam tingkahlaku manusia dalam laman rangkaian sosial. Kajian ini mengkaji hubungan antara penggunaan laman rangkaian sosial yang terpilih (Twitter dan Facebook) dan pengetahuan berkenaan politik, sikap dan tingkahlaku pelajar universiti di Iran. Tesis ini dijalankan dengan mengunakan mod campuran iaitu mod kuantitatif-kualitatif dan pemilihan sampel kajian adalah dalam kalangan pelajar universiti Iran bagi mengumpul data kuantatif melalui soal selidik diikuti dengan temubual melalui email dengan pensyarah dan pakar-pakar media dari Iran. Kajian ini menggunakan kaedah kajian tinjauan dan soal selidik berstuktur sebagai satu cara pengumpulan data tahap kuantitatif. Saiz sampel dalam kajian ini terdiri daripada 382 orang pelajar Iran dan 12 orang pakar media. Dapatan kajian ini menunjukkan secara umumnya terdapat hubungan langsung dan positif antara tahap penggunaan rangkaian sosial dengan pengetahuan politik, sikap dan tingkahlaku. Keputusan menunjukkan apabila terdapat penglibatan secara sederhana dalam masyarakat awam, tahap pengetahuan dan aktiviti politik juga sederhana. Oleh itu, terdapat kemungkinan bahawa dalam masyarakat selain Iran dengan tahap penglibatan sosial yang tinggi dalam masyarakat awam, juga mempunyai tahap yang tinggi dalam tangka laku politik. Dapatan kajian ini juga membantu pihak pembuat keputusan untuk mengurus rangkaian sosial dengan lebih baik dan cekap agar golongan yang bermasalah tidak akan merendah-rendahkan penglibatan politikal secara sihat. Kajian ini juga menunjukkan kesederhanaan dalam sektor yang berbeza dalam kalangan pelajar, oleh itu kerajaan boleh mendapat gambaran yang positif melalui idea dari pada pihak lawan.

Kata kunci: Laman rangkaian sosial, pengetahuan politik, sikap politik, tingkahlaku politik, pelajar universiti Iran.

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LIST OF ABBREVIATIONS

- **AT**: Attitude

- **BH**: Behavior

- **KN**: Knowledge,

- **PARTC**: Participation

- **PAT**: Political Attitude

- **PBH**: Political Behavior

- **PKN**: Political Knowledge

- **SNU**: Social Network Use

- **TPB**: Theory of Planned Behavior

- **UGT** : Uses and Gratification Theory

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CHAPTER 1: INTRODUCTION

1.1 Background

The Internet has proved to be able to create the environment that allow the people to create relationships, different networks and they are even able to feel a sense of community. However, the nature and quality of the network and its system are clearly different from traditional networks which were based on face-to-face interaction, so it is difficult to explain the nature of new networking and its measures which are elements of civic and political environment . In its relatively short history, the Internet has grown dramatically in importance as a source of information and political involvement (Sweetser et al., 2008a).

The relationship between Internet and politics has been under unprecedented number of academic studies during the last decade (Zhang et al., 2009). A diverse array of issues was covered by the different streams of research including the ownership of media, online political campaigning, credibility of online political information, business in the cyberspace and participation of citizens in the political activism (Cantijoch et al., 2008). Such developments are linked to the current trends in the society such as the integration of the Internet into the lives of people and political and social organizations detachment of citizens from the political process and the changing social, psychological, technological and economic conditions (Sweetser et al., 2008a).

Social Network Sites (SNSs) are platforms for the online communities where users connect to the people within their social circle or beyond it. The variety of services available in SNSs and their widespread and increasing influence as an information source and their position in the people contact has increased the number of researches on the

behavior of people in the social network sites (Brundidge, 2010a). The popularity of social network sites attracted dramatically adolescents and young adults among the other all over the world (McLeod et al., 1999a). The number of active young adult users in the online networking sites such as popular social portals such as Facebook has been quadrupled between 2005 and 2008 which is an increase from 8% to 35% (Huckfeldt et al., 1995). Moreover, Zhang et al. (2009) stated that social networking has shattered traditional socio-economic barriers because when using social media there is no need to be somebody to be somebody. Using social networking involves the use of recent communication technologies such as personal computers, tablets and smart phones which allow the users to interact with others through web. According to Davies (2010), social networking in the form of web-based or mobile applications allows the users including individuals and organizations to create, publish and share new or existing contents through multi-way communication means in a digital environment.

One of the major purposes for the media, rooted in traditional mass media, is fulfilling the need to information, entertainment, social interaction and personal identity (McLeod et al., 1999a). Research works on the Internet suggest that users use this medium to fulfill their social, entertainment and instrumental needs (Cantijoch et al., 2008). A significant number of research studies have measures the use of SNSs with regards to the overall time spent on them. For example, in order to find out the political potential of SNSs, exhaustive use of Facebook and news portal studied before (Sweetser et al., 2008a). Globally, young generation use the social networking to contribute in the government general public policies and engage in the political mobilization. For instance, Zhang et al. (2009) found that the recent changes and revolutions in the Middle East, which affected Iran, Egypt, Tunisia, Syria, Lebanon and Libya, happened under the influence of social networking on these governments' policies (Attia et al., 2011). The emergence of

Facebook prior to the highly disputed presidential elections in Iran allowed the opposition to use this platform to voice out their concern over allegations that the polling stations were rigged and that the election should have been nullified. It was the first time that political movements and social media were bonded and it sparked massive protests across the country. However, although there was a heave crack down on the protestors and the uprising failed to gained success despite picking up a strong momentum because of the available social media at the time like Facebook and Twitter, its wave did not die out in the region. Instead, the very same wave splashed into the shores of Egypt, which lead to the Arab Spring and the uprising that followed and ended with the fall of the forty-dictatorship rule of Hosni Mubarak who was overthrown from power as a result of the Egyptian Revolution.

In the political literature, there are two emerging schools of thought related to political participation and political engagement. The first school of thought defines participation as a route for achieving influence and Conway (2000) conceptualizes the political participation as the actions which citizens undertake to influence governments in their different levels; Meanwhile, MacKuen et al. (1987) state that through active participation, individuals can take the control of those policy decisions that may impact them. The second school of thought relates engagement and political participation to learning and some specific activities like volunteering, signs placing, donating and bumper stickers as defined by Huckfeldt et al. (1995). Farrall and Delli believes that this is composed of four parts namely 1) political behavior which can be voting, candidacy, communicating with the representatives 2) holding of a certain set of beliefs and attitudes toward politics 3) keeping an informed position in the current political issues and 4) adhering to certain democratic values and norms like civic duty, political efficacy and tolerance (Huckfeldt et al., 1995). Moreover, Calhoun (1988) defines the political

participation as a set of activities to persuade other for the participation in a group or political party and following its activities to make some changes. The second school of thought has its emphasis on the informed positions and political behavior and attitude which is relevant to the current study.

As well as the present research studies the social media in an Iranian context, this study will require an explanation of the Asian nation's situation and their practice of democracy. It can be claimed that politics flows from behavior and attitudes of the ordinary citizens and the institutions in the democratic process need to be structured so that they can respond to the citizenry. Such claim has brought up debates about the capabilities of the public and the quality of public participation which was begun with Aristotle and Socrates in ancient Greece and has continued down the ages from the experiment at democracy by the Roman Senators to their demise at the hands of Augustus who became the downfall of democracy to more recent examples in the French revolution and how again, ironically, democracy fell into the pit of monocracy and the dictatorship of Napoleon Bonaparte all the way continues during the contemporary politics and our century (McLeod et al., 1999a).

There have been an equal number of studies for Asia, Africa, Latin America, and other developing regions. Despite the potential effects of conservative Confucian traditions and the hesitant that governments have for the democracy in many nations, the cultural foundations of democracy also are well developed in many Asian societies (Scheufele, 2000). The wave of democratization in the world during 1990s has dramatically increased role of the citizens in many new democracies in Asia, Eastern and Central Europe, Latin America and Africa. Thus, the democratization waves in these regions point to the very core of many of the most basic questions about citizen politics nature and the political process in work and its effects could be seen in the uprising that

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were sparked in Hong Kong after the decision made by China to handpick the selected members who may run for the elections, in which lead the citizens of Hong Kong to rally in the streets and massive demonstrations that followed yet at the end did not succeed in bringing about the intended change (McLeod et al., 1999a).

For the effects of media on the public participation depend on individuals' motivation in using the media, Verba et al. (1995b) believe that it is not the media that affect the engagement of the citizens but the specific ways that individuals undertake to use media (Carpini et al., 1993). Social networking in the developing countries has several problems that prevent its full usage. As an example, Jennings (1996) found that problems such as irregular power supply and slow internet access and low bandwidth are major challenges that Nigerian students face.

Due to the vast and growing popularity of social media within the population of Iran, it is paramount that we begin to understand how young adults are using social network sites (SNSs), and that effects such uses have on their lives, and particularly their political lives. Coming back to Iran, particularly after the Nuclear agreement with the world powers and rapprochement that followed and brought Iran back to the world's stage, after the election results in June 2009, the Iranian government quickly censored and restricted access to huge numbers of domestic and foreign websites, which it deemed to be "un Islamic" – as defined by the ministry of intelligence and the leading clerics of the country - or threatening to the national stability of the country, while cyber-attacks crippled other sites located outside the country (Kenski et al., 2006).

Further, the regime throttled and restricted Internet bandwidth (Calhoun, 1988), which had the effect of stopping users from watching or uploading videos documenting the state's brutal and violent suppression of the protest movement. Due to the restrictions placed on international media in Iran, protestors had resorted to uploading videos and

distributing news through social media and the Internet, becoming the world's first 'Twitter Revolution' (Cantijoch et al., 2008) in Western media. Though the hyperbolic claims of Western media and politicians subsequently proved to be exaggerated (Beilin et al., 2009), the fact remained that the Internet represented a vital and new force in the ways in which states conceived of information that as mentioned before lead to the Arab Spring and other neighboring countries that in many ways defined the new century let alone the new millennium.

A study by Calhoun has shown that informational use of media has a positive relation with political participation (Calhoun, 1988). Use of Internet for observation of public affairs is found to have a positive role in participation by providing information to individuals to deliberate and reflect on the political matters and civic affairs (MacKuen et al., 1987). Sweetser et al. (2008b) found a positive relation between the use of mobile phones for seeking information and other forms of participations in the civic and political affairs. Verba et al. (1987) defined political participation as political outcomes are influenced directly by the ordinary. This concept was further developed by excluding political attitudes, knowledge and learning, instead of limiting this term to active participation which is influenced by the government decisions and selections that government officials make (Sweetser et al., 2008b).

1.2 Statement of Problem

The rise of State-controlled Internet and Internet filtering has led many scholars and critics to assert that the modern state has found renewed vigor and life online (Lupia et al., 2005). The right to control information flows is a function of state sovereignty in its most traditional territorial sense (McLeod et al., 1999a). In some states, such as Iran, servers must be registered via ID cards to citizens of the country. Unauthorized access,

especially from overseas, can create a political predicament for the owner of the server or computer with serious repercussions. The computers selected must be representative of the general filtering which occurs in the state, as regional and local geographic variations exist in filtering (Dimitrova et al., 2011). Internet filtering also varies with time, as demonstrated with Iran's loosened Internet restrictions prior to the 2009 presidential elections and severely curtailed Internet access after the election. In fact, the government took serious measures after the elections so that such widespread access to online information would not occur again in the future and has been a prevalent force that has defined not only the elections that followed but also its crackdown on possible protestors and as a result the uprising never occurred again, which could entail that the government was somewhat successful in its claim.

The Iranian government operates one of the largest and most sophisticated Internet censorship regimes in the world (Calhoun, 1988). As a result, youths are of top importance in active electronic participation in Iran because of their proportion in Internet users (Cicognani et al., 2008). Iranians are quite computer savvy and unlike their neighboring countries, the majority of its youth are modernized, highly educated and widely involved in the political process of their country. The best example was the most recent parliamentary elections in Iran that took place in February 2016 and unlike what the polls had predicted, the youth came out to vote in droves and all the thirty seats of the parliament for Tehran District was awarded for the opposition party and the Reformists whom many thought had been eradicated back in previous elections both due to crackdown as well as the unwillingness of the people to vote for them. The predictions were wrong and the Reformists are now backing in power in Iran.

Internet is the most recent form of interesting media and social network websites such as Facebook or Twitter among others are the most attractive ones that personify the

power of the Internet. Studies on social networks in the contexts such as non-Western societies suggested that people in these communities tend to use social networks differently based on their cultures (Takahashi, 2010). Such cultural approach to SNSs can explain the differences between low-context and high-context countries like Western countries as characterized as low-context and individualistic and Eastern countries which are usually high-context and collectivistic (Kim et al., 2011).

The impact of a solitary individual on society as a powerless entity is very low. However, when this individual band together with other people and participates in a collective action toward a common and certain goal, permanent changes will be possible (Carpini et al., 1993). Therefore, the studies on building the relationships are all based on the promise that social networks might help strangers to connect to each other based on the common political views, shared views or common activities (Sweetser et al., 2008a). Many studies have shown the positive effects of some online activities on the political behavior in broad spectrum of different online activities and behaviors and their ultimate offline effects on the users. Such studies, however, did not include the social networks specifically within their scope (Kenski et al., 2006). The current study was an endeavor to look into the specific population of Iranian users of Facebook and Twitter to find out how their online activities are translated into significant behavior out of Internet including political participation and electoral turnout.

As Internet use continues to become integrated into the daily lives of Iranian youths, it becomes necessary to understand the implications of political aspects use. Recent work has determined that Facebook use that is explicitly political (supporting a candidate, creating a political event, etc.) predicts political behaviors and political engagement among young people, but that kind of behavior is limited to a small sector of

the population (Kenski et al., 2006) but as for in Iran, as a country where internet filtering is used vastly, it is necessary to study political behaviors among the young adults.

Studies on the effects of media on political variables are an engaging as well as exciting field of research. Social network sites (SNSs) became meaningful arenas for activities and interactions relevant to politics. They have also become mainstream channels for the spreading political information and opinion (Cantijoch et al., 2008). Information exchange has a strong, positive and consistent effect on public engagement (Shah et al., 2001). The current study seeks to provide a more accurate understanding of social network sites by examining their potential as new tools for political engagement among Iranian university students.

Although social network sites are enjoying a growing popularity and political and civic organizations try to adopt such services, there is a limited number of empirical research on the effects of SNSs and their services on the political attitude and behavior of the citizens (Sweetser et al., 2008a; Valenzuela et al., 2009a). The development of identical social networks strengthens the existing political characters and it often leads to an empowered political behavior (Walsh-Haines, 2012). In most of western societies, while some have begun to ponder potential outcomes related to Facebook use, only few have considered major political implications of their usage. In fact, the major reported uses and gratifications related to Facebook- shared identities, social connection, social investigation, content, visiting social networks and status updating- are clearly apolitical (Sweetser et al., 2008a). Nevertheless, in Iran, while the government applies Internet filtering, the effect of SNSs usage on young adults' political behavior, political knowledge and attitudes is not clear, to say the least.

According to information released by Pew Research, almost 40 percent of American adults have used SNSs to take part in some form of political or civic activities

such as expressing and posting their political opinions and encouraging other people to act on different social as well as political issues and also engage young people to vote and exercise their political rights to participate effectively in the democratic process of their country, as well as belonging and signing up to political groups (Zhang et al., 2009). Studies indicate that political chat groups as well as Facebook sites assist in information seeking needs that the young people strive for in the participation of their political activism (Cantijoch et al., 2008) and political attitude and behavior are influenced by the political chat (Sweetser et al., 2008a). However, it goes without say that relatively less attention is paid to the effects and influences of SNSs on political attitude and behavior and that would be an intriguing question to respond in future research (Zhang et al., 2010).

With the development of new media, the central focus in the research works on the IT and politics is put on the interactivity (Sweetser et al., 2008a). Research shows that the interpersonal discussion between the people has an influence on the political variables (Brundidge, 2010a; Huckfeldt et al., 1995; Zhang et al., 2009). Discussion with those people who have common thinking serves to stiffen the party affiliation and it helps in the voting in the party lines (MacKuen et al., 1987).

While many believe that rise of SNSs have increased the political and social interaction, little is still known about the factors that promote the use of them in the political contexts. It is a long time that mass media have been found to have socializing influence. For example, it is apparent that media usage has a role in the formation of political knowledge and opinions in the adult people (Sotirovic et al., 2001) and it serves as a medium for the participation especially in the young generation (Shah et al., 2007).

In sum, in line and accordance with other studies on the role of social network sites in political knowledge, attitude and behavior, Steenkamp et al. (2014) studied about the use of Facebook for political discussion in South Africa and found out that the use of the

internet, and particularly social networks, is relevant to politics, political campaigning purposes and to encourage people to engage in political discourse. However, for Iran in particular, there are still only a few studies on the relationship between media and political knowledge, attitude or behavior. The literature review shows that there are very few studies on the mechanism that translates the effect of social network use on political attitude and political behavior. Therefore, it is safe to say that it is the first one that is discussing the issue of filtering. Conducting this study becomes more important in Iran where it is often characterized by filtering social networks or limits its application based on its constitutions. Compared to the other studies, this research utilizes a framework to analyze the effects of SNSs on Iranian university students' political knowledge, political attitude, and political behavior. While some studies examined the effect of social media on one's behavior, this thesis focuses on Facebook and Twitter and investigates their impact on the political knowledge, political attitude and political behavior of Iranian university students.

1.3 Research Objectives

Now that the importance of Iranian university students to such issues has been established, we can have more light shed unto the objectives of this study, which may be described in more depth and details. This study is going to be concerned with how the process of Internet filtering affects the political perspective of Iranian university students. These complex issues will be outlined in more depth and entails as we continue with the study. Based on the research topic to survey the relationship between use of SNSs and political attitudes, political knowledge and political behavior of Iranian university students, the study first elaborates on the major concepts of political knowledge, attitude and behavior, and reviews the history of social networks. The effects of social network

use by Iranian university students on their political attitudes, political behavior, and political knowledge have been another aim of the current study. How the usage of social network affects the relationship between the political knowledge of Iranian university students and their political attitudes and political behavior. Furthermore, we will also examine the mediating role that political knowledge has on the effects of using social networks by the Iranian university students. The standpoint of these items in an Iranian context will be described, along with the instrument developed to assess these aforementioned variables, in the form of a questionnaire. This research is intended to measure the extent of social network usage as well as the connection to the political knowledge, attitude and behavior among Iranian university students. Thus, it discovers the relationship between these two variables of the study. Finally, this study proposes an alternative for Internet filtering in Iran, and also provides some recommendations for a firm use of SNSs instead of filtering the sites based on the outcome of the interviews conducted by future academic staff working in this field. The objectives of the current study can be summarized as below:

1. To explore the relationship between usage of social network sites by Iranian university students and their political knowledge, political attitudes and political behavior.

2. To examine the effects of social network use by Iranian university students on their political attitudes, political behavior, and political knowledge.

3. To investigate on the mediating role that political knowledge has on the effects of using social networks by the Iranian university students.

4. To measure the extent of social network usage and its connection to the political knowledge, attitude and behavior among Iranian university students.

1.4 Research Questions

Based on the objective outlined above, the current research attempted to answer the following questions in details:

RQ1: What is the level of social network use by the Iranian university students?

RQ2: What is the level of political knowledge, attitude and behavior of the Iranian university students?

RQ3: Does social network sites use by Iranian university students have a significant positive effect on their political attitude?

RQ4: Does the use of social network sites by Iranian university students have a significant positive effect on their political behavior?

RQ5: Does the use of social network sites by Iranian university students have a significant positive effect on their political knowledge?

RQ6: Does the political knowledge of Iranian university students have a significant positive effect on their political behavior?

RQ7: Does the political attitude of Iranian university students have a significant positive effect on their political behavior?

RQ8: Does political knowledge mediate the relationship between social network use by Iranian university students and political behavior?

RQ9: Does political attitude mediate the relationship between social network use by Iranian university students and political behavior?

1.5 Significance of the Study

Although there is an increasing academic attention to the SNSs potential, the evidence is not enough on who mobilize people through social network sites and how their online activities lead into offline participation. Relatively, few empirical studies have looked

into the SNSs influence. As majority of population, mostly adults utilize SNSs, understanding how Iranian people use these sites and what they mean to them is increasingly important. Based on Aryan, and Halderman (Calhoun, 1988), the government of Iran recently created a Cyber Police unit, FATA, which monitors Iranians' online activities and prosecutes dissidents (McLeod et al., 1999a). Iranian users have in turn used various types of anticensorship tools to gain free access to the web (Scheufele, 2000) such as VPNs. Filtering begins through a determination of the forms of content which should be filtered. There are not uniform informational categories, which states censor content around the world. For instance, gambling is not universally censored nor is pornography. Rather, information is classified and then controlled through technical and activity regulations as a vehicle towards establishing geopolitics of cyberspace. According to the Open Net Initiative, a collaborative research group formed by the University of Toronto and Harvard University, censored content can be classified into political, conflict/security, social, and Internet tools. Political content is content which explicitly focuses on political topics, often with views in opposition to or critical of the sitting regime (Verba et al., 1995b).

There are several aspects in this study that contribute to its significance. First of all, based on online and library searches, it could be said that this study is the first one of its kind because so far there is no study about social networks and political knowledge, political attitudes and political behavior concerned specifically with Iranian university students. Certain previous studies were concerned more with areas such as mass media and political knowledge (Lupia et al., 2005), mass media use by Iranian university students (Carpini et al., 1993), political awareness of university students in Iran (Fal l, 2011), and about the role of social media in Iran's recent presidential elections (Kenski et al., 2006). The significance of the current study is in the fact that this study departs

from the previous studies as it includes social networks, which focus on group interactions as the main theme. It is well understood in this field of study that social networks can be deemed as an effective way for collection and distribution of loads of information and therefore, the current study tried to show the status of social network use by Iranian university students and its role on their political knowledge, political attitudes and political behavior (Sardarnia.2003). Moreover, this study focused on the transmission of political information through social networks which have shown effects on Iranian society with increasing the political participation. The current research also described the role of Internet filtering and it has contributed to the existing knowledge on the role of SNSs on political information distribution and filtering issues inside Iran.

1.6 Scope of the Study

In the proposed study only the usage of SNSs on Iranian university students' political behavior, knowledge, and attitude with a focus on on Facebook and Twitter is investigated. The participants of the study consisted of lecturers and scholars who have been using social media and instructing in various fields such as translation and communications in Tehran, Karaj, and Shahrood.

1.7 Definition of Terms

This part describes the conceptual and operational definitions of variables that were used in this study. State why there's a need for the terms to be define?

1.7.1 Political Behavior

According to Eldersveld and Katz in 1961 cited in (Cantijoch et al., 2008), "political behavior means the behavior, actions and acts of individuals as the primary unit of

analysis rather than characteristics of institutions such as a legislature, executive and judiciary". That is, political behavior mainly tries to explain a behavior, which is based on an unbiased, neutral point of view. Sampling, statistical analysis and interviewing are some methods to study political behavior of individuals and actors in politics, voters, lobbyists, and politicians, as well as the relationship between the political actions of citizens and the political process in a democracy. In other words, it covers issues such as political attitudes, political participations such a protest, social movement, extremism, and the elections. Political behavior covers mainly the following issues:

i. Political Socialization: the process of transferring political knowledge, beliefs, and attitudes from one generation to another through family, religious houses, schools, universities, the media, and political parties, etc.

ii. Political Culture: citizen's awareness of political systems; ability in evaluating, accepting or rejecting the system.

iii. Political Participation: citizens' engagement in the political affairs of a given country such as influencing the composition, policies, and practices of government, as well as funding political parties, voting, forming social movements, campaigning, attending meetings, protesting, and joining social movement.

iv. Political Communication: disseminating ideas and attitudes about politics and government, which is mainly under the government cares and control through the media (print and social media) to control public opinion.

v. Elections: organizing the elections, party registration, checking candidates' background, and campaigning.

1.7.2   Political Attitude

Attitude is defined in psychology as a hypothetical construct which shows whether an individual likes an item or dislikes it. Attitude could be in the three forms namely positive, negative or neutral opinion about an "attitude object". Attitude object could also be a person, an event or a behavior. People may also be "ambivalent" to a certain target. This means that they may have both a positive and a negative tendency to an attitude at the same time. Attitudes are the outcome of judgments and affect behavioral change; cognition is the base of attitude formation. Attitude is mainly formed in the individuals through their observational learning from the environment. What an individual prefers for a thing or entity is defined as an effective response which is the psychological response. The intention of the individual is called his behavioral intention and the cognitive evaluation of that thing or entity is cognitive response which forms his attitude.

Eagly and Chaiken also defined attitude as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Sweetser et al., 2008a, p. 110). This definition focuses on attitude expression and evaluation, which is the most suitable definition for this study. On the other hand, Kiesler et al. (1969)distinguish opinions from attitudes and believe that 'opinions should be defined as an overt expression of a covert attitude' which is used in this study. Considering the above mentioned points, political attitudes are the attitudes of people about public life covered by political psychology, for instance views on nationalism, political conservatism, political liberalism, political radicalism etc. Here, one should consider the extent of learning attitudes through previous experience, but of course other factors could influence an attitude over times that are beyond the discussion of this study. According to this argument, two concepts should be studied regarding political attitudes. These two concepts are political interest and political efficacy; both affect political

behavior in terms of political participation and party choice. Since the political system in Iran is not based on political parties, political behavior in this research is discussed and measured solely through political participation with regards to electoral and non-electoral participation. First, it is necessary to have a look at the political interest and efficacy.

Concerning political interest and participation, Verba, Schlozman and Brady's believe that political interest is the most important indicator of people's political activity as political interest stimulates citizens to go and vote (Sweetser et al., 2008b). Confirming this idea, Arceneaux and Nickerson found in their study that citizens with interest in politics are more likely to participate in the polls in an effective way (Verba et al., 1995b).

1.7.3 Political Knowledge

Before any definition of political knowledge, it should be kept in mind that there are important differences between the three terms "data", "information", and "knowledge". Data are a series of unprocessed abstract realities about events (Lupia et al., 2005), while information are the processed data which are understandable for the reader and shape his vision or puts an effect on it, and knowledge is a combination of experiences, values and systematized information which gives a framework to assess new information and experiences (Lupia et al., 2005). Three levels of knowledge include description, classification and convention. When these three levels of knowledge are taken into consideration, it is more relevant for the research to focus on Iranian university students of political science and related topics, instead of on Iranian university students of all sorts. Therefore, the present research is concerned with political information of students most likely to be politically interested and informed. In general, political information is defined as the awareness an individual has about political news and events throughout the world, political events and organizations in and out of a given country, social and political

groups, and social organizations. This definition is abstract and its objective aspects should be considered in the present study to be operationalized.

1.7.4   Questionnaires

In order to fulfill the objectives of the current study three questionnaires were adapted and finally one questionnaire was designed and used in the study. The first questionnaire on the social network sites was an adapted version of the questionnaire retrieved from Qualtrics.com (retrieved from https://tltc.qualtrics.com/jfe6/form/SV_71ko5tlrvYsPScY on 11.07.2015). The second questionnaire about the relationship between social network sites and political attitude and behavior was an adapted version of the survey Rainie and Smith (2012). Lastly, the questionnaire used to collect data on the students' level of political knowledge was adapted from a PhD Thesis by Sardarnia (2003).

1.7.5   Social Network Sites (SNSs)

Boyd et al. (2007) used the term ''social network site'' to describe the recent phenomenon. Moreover, the term ''social networking sites'' is found in the public discourse, and these two terms are often used interchangeably. According to Boyd and Ellison, they did not choose to use the term ''networking'' for two reasons: its scope and emphasis. "Networking" emphasizes on the initiation of a relationship which is often between strangers. While it is possible to have networking on these sites, the main practice in many of these sites is not networking. It is not also the factor that distinguishes them from other forms of computer-mediated communication (CMC). This study uses "social network sites" instead of "social networking sites" because the initiation or maintenance of a relationship in SNSs is not its main goal. This study focuses only on the web-based services to: (1) construct a personal profile; (2) make a list of other users of the service, and (3) create and manage communication with the list of connections.

Boyd et al. (2007) defined social network sites (SNSs) as a web-based portal or service which allows its users to develop public or semi-public profiles for themselves in the bounded system. They can also interact with a list of other users that have a shared connection with them. Users of these services can also view and change their connection lists and the user lists which are made by others. MacKuen et al. (1987) note that social network sites refer to the online tools, websites and platforms that allow the people to share their experiences and opinions including photos, videos, music, insights, and perceptions with each other. Calhoun (1988) believes that these sites allow users or members to form and maintain new relationships. However, Scheufele (2000) argues that both social network sites and social networking portals such as Myspace and Facebook are for managing social connections, collaborating and exchanging content.

1.7.6   Iranian University Students

Iran as one of the big countries in Middle East has a vast network of public and private universities and research institutes which offer higher education degrees to the students. The public universities in Iran are divided into medical and non-medical institutes and the medical universities are under supervision of Ministry of Health and Medical Education and the other universities are managed by the Ministry of Science, Research and Technology. Article 3 of the Constitution of Islamic Republic of Iran has guaranteed the free education for the nationals in all levels in terms of both facilitation as well as higher education. The statistics from these two ministries show that in 1997, higher education institutes in Iran had 40,477 lecturers and 579,070 students. This number have had an increasing trend during the last decades so that in 2003, 92 universities, 56 research institutes and 512 branches of Payam Noor university (the only distance learning higher education university in Iran) had enrolled 33.7 percent of the population of 18-25 years old group. In 2011, there were 3.7 million students studying in different fields and

programs and from this number 1.5 million were enrolled in Islamic Azad University and 1 million students were in the medical science fields. The total number of students has increased to 4.5 million students in 2013 out of the country population of 75 million people. 750,000 skilled graduates are the annual output of Iranian higher education system.

1.8   Organization of the Thesis

This thesis is presented in six chapters. The first chapter looks into the background and identifies the problem investigated. Also the first chapter is the introduction of the thesis, beginning with the problems related to filtering the social networks in Iran and lack of access to sound political information through social media. The next part of the chapter includes objectives of the study as well as its questions. The chapter explains the significance of the research. The finally defines the scope of the research and operationalizes the key research concepts.

Chapter two is a review of the literature and the theories and viewpoints about the research variables: social network sites (SNS) and political knowledge, political attitude and political behavior. It reviews previous studies about the relationship between social networks and political knowledge, attitude and behavior as well as the studies already conducted on the issue in an Iranian context.

Chapter three discusses the research design and methodological framework. It includes discussion about the statement of the problem, objectives of the study, research questions and research hypotheses. It also explains the type of the research, the target population, the target sample, sampling method, the instrument and procedure for data collection. The significance of the study is also discussed in details.

Chapter four contains the analysis of the data and presents the findings in detail.

Chapter five discusses the research finding, while chapter 6 summarizes and concludes the study.

1.9 Conclusion

This chapter presented an introduction to the study and it discussed the background, statement of the problem, objectives of the study, research questions, research hypotheses, significance of the study, scope of the study, and finally provided the definitions of terms. This chapter discussed the gap in the knowledge and the lack of up to date information about the specific role of social network sites in increasing the political knowledge of Iranian students which can ultimately have impacts on their political attitude and behavior. Next chapter looks into the state of the art and reviews the available literature on the subject.

CHAPTER 2: LITERATURE REVIEW

2.1   Introduction

This chapter focuses on the related review of literature. It provides detailed background to the theoretical concepts, and three variables of this study including social network sites and political knowledge, attitude, and behavior. This chapter also accommodates a brief history of social network sites and Internet filtering in Iran. It also discusses other scholars' views about the necessity of political knowledge and interest in a democratic society to encourage other people to have an active participation in solving the problems of the society. Thus, previous studies measuring the extent of political knowledge, attitude and behavior of individuals in terms of their age, gender and educational level would be discussed in the next section of the chapter. It should be said that the efficient solution of any real life problems preferably involves the engagement of informed and active citizens. Citizens can get their motivation and information from direct experience, group discussions, interpersonal discussions and media. The Internet in general and the social network sites in particular are the main forms of communication among Iranian university students. The purpose of this study is to determine the relationships between social network sites usage, political behavior, political knowledge, and political attitude among Iranian university students. This literature review will discuss the following subtopics: (1) political behavior and social network sites, (2) political behavior and political knowledge, (3) political behavior and political attitude, (4) political knowledge and social network sites, (5) political attitude and social network sites, and (6) summary.

2.2   Political Knowledge

For many decades, political knowledge has been known as an integral part of public viewpoints. So far, many definitions of political knowledge have been developed, mainly as factual information about politics and government that individuals may have. Delli Carpini and Keeter the two leading scholars in the political knowledge field, define this kind of knowledge as the range of facts about politics in the long-term memory. They divided the political knowledge into three categories of "players", "substance" (e.g., domestic politics) and "rules of the game". In their definition, the concept of 'range' can be branched into two "broad" and "specific" aspects. That is, individuals could be specialists and well-informed about particular aspects of politics and policies in certain circumstances. For example, knowledge about national political institutions and processes, knowledge about a particular president and knowledge about politics in general are specific range of political knowledge. Or individuals could be generalists with broad information about politics. For instance, Americans have more knowledge about the 'institutions and processes' than about 'people and players'. To furnish an example, ninety-nine percent of American people could tell who the president of their country is, but just a few of them know which party is in the charge of controlling the House (Sweetser et al., 2008a).

According to Cantijoch et al. (2008) political knowledge is a sub-division of "political awareness", "political sophistication", or "political expertise". In his view, political knowledge is an important source of people's attention to an attitude or opinion. In fact, many theories about the formation and change of public opinion are developed on the basis of their political knowledge. In addition, a key concept in a democratic theory is political knowledge. Since the time of Plato in ancient Athens, scholars have been asking whether the knowledge of the people is sufficient to allow them to play a

significant role in ruling society. It would seem that many elite minds throughout history have been pessimistic about this possibility.

Carpini et al. (1993)believes that political knowledge is a primary variable in any research on political communication. In the democratic nations such as the United States, the study of political knowledge has a root in democratic theory. There is an assumption that if citizens have to participate effectively in a democratic society, they first should be well informed. In Carpini and Keeter's definition, political knowledge can refer to political sophistication or political expertise; however, knowledge is generally defined as correct information—either about an issue or about the structural relationships among cognitions.

Political knowledge can be examined as a dependent variable - for example, depended on the media effects—but knowledge can be examined as a predictor, a moderator, or a mediator in a communication. That is, political knowledge may lead to political discussion, mediate the relationship that exists between political participation and media use.

Concerning political knowledge,Carpini et al. (1993) developed two views. In one view, political knowledge can be a one-dimensional phenomenon, while the other view is a multidimensional concept or a concept with a specific domain. In the first view, it is possible to use a limited number of questions from one domain as a valid instrument to measure the general political knowledge. However, if political knowledge is viewed as a multidimensional phenomenon, a series of questions about one domain cannot be taken as a valid indicator to measure general political knowledge.

Sweetser and Kaid (2008) state that citizens equipped with political information provide the ground for the best functions of democracy, this being a concept that forms the base in studying political information. For instance, if an individual is going to determine whether a candidate or policy A is superior to B or C, he should have

knowledge about who or what candidate or policy is superior to other candidates or parties. Berelson cited in Sweetser et al. (2008a) states that:

> The first requirement of electorate decisions is the possession of information and knowledge. This is a requirement nearly everyone sets down for a democratic electorate; politicians and statesmen, adult educators, journalists, professors of political science—all of them pay deference to the need of enlightened public opinion'... Information and knowledge are required of the electorate on the assumption that they contribute to the wisdom of the decision; informed citizens make wiser decisions. (p. 317)

In fact, this is the political information and knowledge rather than constitution that shapes the political power and authority of a democratic society. However, the most important point here is the significant difference between knowledgeable individuals and ignorant ones. One should have a look at past definitions of democracy. Aristotle and Plato were fundamentally elitist, sometimes even aristocratic, and had grave doubts on the citizens' general abilities for governing the society. In his foremost writings, Plato considers an ideal city of Gallipolis, which is a name that literally means "beautiful city". In this imaginary superior society, Plato divides the society into three groups. The highest groups are the guardians, who are intended to be philosopher-kings. The middle groups are the auxiliaries, who support the guardians and enforce their rules. The lowest groups are the citizens or artisans. Guardians are selected to govern the state, while auxiliaries execute the law. In Aristotle's view, the majority of citizens are considered unable to govern the society, although they are not completely lacking in political authority. This means the political involvement of the common citizens is preferred, even if they are discouraged from seeking to rule. Thus, political decisions are the basis of the selection

of leaders, which in turn involves a certain degree of knowledge. All societies, in all times and places, have faced the problem in their political system of what could be done when too many, or even all, the people who possess power are not knowledgeable, or even downright ignorant. Aristotle did not answer this question, at least in his extant writings (Zhang et al., 2009).

Brundidge (2010a) believes that a person's level of knowledge depends on his profession and prerequisites. Knowledgeable people are those who have a great deal of information and are able to check the government. Checks and balances are necessary for a functional democracy. Making progress in the political hierarchy and preventing leaders and those who govern us from abusing their power requires knowledge. Knowledge is power in both politics and economy. Therefore, the political knowledge can have a positive impact on the behavior of the citizens in their interactions with the governments and their criticism about the current situation in the country.

Democracy is preserved and continued in a society when people have knowledge of the history of their own country and other countries to see other leaders and to evaluate their performance in detail. The existence of other political systems as a yardstick or basis for comparison is best done with a real understanding of the details of those foreign systems. Reading, writing, history and geography are useful in this regard. When teaching factual knowledge is insufficient or limited in available time, then it is all the more important that information be well organized and easily accessible. Education should be than teaching facts for rote memorization. It is a simple fact that many people may be quite intelligent, but have very poor memory. In order to compensate for such common weaknesses, people should learn to access, store, and retrieve the necessary information, to act and judge, and to generally be aware of authentic facts. These are all necessary parts of and indirect democracy' because people select representatives to decide for them.

Certainly it is better that people select knowledgeable representatives rather than charismatic but ignorant ones.

Gajora (2011a) believes that a little amount of knowledge would be enough to select representatives, but the selection of leaders involves in-depth knowledge. Even controlling these leaders requires a small amount of knowledge, and less knowledge could lead to less control. Huckfeldt et al. (1995) state that "If people cannot comprehend public issues, then popular control is risky at best". For Gajora, the root of democracy is knowledge. Knowledge is necessary to cope with the complex world, to make stable decisions, to make arguments, to know the reason of their political behavior and as a result to be able to support their political decisions. These all focus on this point that the most important condition for democracy is political knowledge.

MacKuen et al. (1987) discusses about this issue in terms of election. He defines political knowledge in detail. In his view, "political knowledge is factual information stored in memory about public policy, government affairs, elected and appointed government officials, and candidates for public office" (p. 174). That means, it is expected the leaders of a society, if they are informed ones, act on the basis of thought and logic. It is expected that citizens of a society vote for candidates based on for and against ideas. In other words, when the whole of the community and each of its component individuals act with accurate information, the society would work with superior efficiency. In his view, democratic elections allow the citizens of a given society to decide about the direction of their government; therefore, democratic theorists and political scholars concern about citizens with low levels of political knowledge. Democracy in a society is not all that useful if the citizens of that society do not know the policies supported by the candidates. An ignorant democracy relying on many poorly informed voters is ultimately just a popularity contest.

Likewise, in Calhoun (1988) point of view, political knowledge focuses on electoral changes. Based on data analysis of the election in the US, McLeod et al. (1999a) and Scheufele (2000) also support this idea that different election results could be due to an increase in knowledge. However, Carpini et al. (1993) found that change of people knowledge was ineffective in the results of the election in Moldova or Romania.

According to Calhoun (1988), there are certain factors for acquiring political knowledge. One of these factors can refer to political efficacy and trust, political interest, discussing politics in the group, exposing to the media, skills obtained from engagement in the community (for instance attending religious services or holding membership in any organization), education, some civic duty partisanship, occupation, cognitive ability, race, age, sex, having children, marital status and household income. In his view the most important predictor of knowledge is political interest. If someone is not interested in politics to begin with, he will not become politically knowledgeable even if he has the ability and opportunity. Jennings (1996) have emphasized on the roles that education and intelligence play in acquiring the political knowledge. Likewise, Kenski et al. (2006) believe that gender affects the extent of interest in political knowledge. In their view, in places that are dominated by traditional gender attitudes, women are not interested in politics to the degree that men do and their participation in political activities is at lower rates. Something else, which must be taken into consideration, is how cognitive capacities play their roles in the extent of political knowledge. Lupia et al. (2005) argues that this knowledge is constrained by the peoples' cognitive abilities, while for Sweetser et al. (2008a) accurate political knowledge is dynamic. According to these scholars, nature (cognitive capacities) and nurture (political environment and motive) could lead to political information.

In general, political knowledge is known as factual knowledge, but it has not been understood completely and clearly. Cantijoch et al. (2008) believes that if voter possessed factual information about political parties or candidates, it does not mean that he understands political affairs. Sweetser et al. (2008a) discusses the other terms used together with political knowledge. One of these terms is "political sophistication" which means concern, interest, and attentiveness towards politics. The other term is "political conceptualization" defined as a cognitive organization and the active use of political knowledge. "Political sophistication" is used to measure political information (Jennings, 1996; Sweetser et al., 2008c).However; this is political knowledge, which is still considered the core of the measurements.

Either "political sophistication" or "political expertise", or the two categories of the "rules of the game" as "player" and a "substance", political knowledge is, indeed, a significant source which has roots in history of democracy. Whatever the arguments or definitions, all the scholars unanimously agree upon the fact that political knowledge does have dramatic impact upon the political behavior and political attitude of an individual. Political knowledge of an individuals or groups of people can play a significant role in the formation of a government.

2.2.1 Political Knowledge Measurement

General knowledge cannot be measured directly; in other words, a series of test questions cannot assess the content of political knowledge. Thus, first political knowledge should be conceptualized. That could be viewed as a good representation of the information that citizens for participating in a democratic society. The problem here is that political knowledge is usually measured through surveys. However, the reluctance of people to deal with surveys is well known. It is not unusual for researchers to prioritize the creation

of a positive rapport with respondents, in order to get them to be willing to give any of their time at all. This makes it unlikely for most researchers to ask them more in-depth questions or to slowly determine their factual knowledge. Jennings (1996) measure factual knowledge with three dimensions: "political institutions and processes", "contemporary officeholders and party alignments", and "policies and issues of the day".

Some researchers Smith et al. (2008) and Jennings (1996) see people as generalist, and it means that exploration of knowledge in one area is a valid instrument to measure the general political knowledge. According to Carpini et al. (1993), interview and knowledge quizzes could be good experiences to measure political knowledge, while Sweetser et al. (2008b) argues that one advantage information test to other constructs is that "unlike political interest and media use, information tests do not require respondents to estimate subjective behaviors or inner states". These tests are objective, but are not based on biased responses.

Any measuring instrument has to be both reliable and valid. Reliability means to achieve consistent results while validity is the ability of an instrument to measure exactly the measurement that it is required to do. The problem is whether the researcher conducts a valid measurement, especially for an abstract concept such as political knowledge. Political knowledge measurement requires a normative judgment about a citizen's knowledge about certain things. That is, political knowledge is more abstract than activities such as voting or supporting certain policies.

Validity can be assessed with several tests. Each test reveals whether the instrument is a valid one for the concept to be studied. Jennings (1996) used the tests of inter-item association, construct validity, and content validity. The full domain or meaning of a particular concept is determined by content validity. Through this validity a researcher assures that all portions of this domain have been included in the

measurement technique. Carpini and Keeter (1993) asked political scientists to define the important issues that citizens should be aware of in order to assess content validity. So far, scientists have not justified what might happen if a citizen does not know something about an issue. In a study with some areas assigned as important, Carpini and Keeter (1993) found that citizens could be called a political knowledgeable one if they have information about institutions and processes, about issues and policies, about history and about political alignments.

Based on these findings, they did a survey with 42 questions and tested construct validity. Construct validity means the relationship between the item scale to define a concept, in that case political knowledge, and the variables corresponded with that concept. For instance, it is clear that education is in line with knowledge; thus, if the item scale shows a positive relationship with education, it means the construct validity of that scale is supported. A problem is that it is not always clear whether the scale really measures what it has to measure; that is, whether it is a valid instrument or not. When there is a strong correlation between two variables for example x and y, it can be assumed that the scale is a valid to assess x, even though it measures y as well. Therefore, construct validity by itself cannot be necessarily a valid instrument. In other words, content validity should be assessed as well. This test would be an additional test of validity rather than an exclusive test. In their survey, Carpini and Keeter (1993) found three distinct areas: knowledge of local politics, of state politics and of national politics, with a dimensional concept within the important area of national politics. Applying the tests for construct validity for the different dimensions, Jennings (1996) concluded that "using one dimension out of the area of national politics is a sufficient instrument for general knowledge of national politics". The current study in one aspect of its goals has benefited

from the construct validity in finding the general political knowledge that Iranian students hold.

On the other hand, Kenski et al. (2006) state that schema theory should not be used in political psychology. According to these scholars, schema is a "set of cognitions relevant to some concept". Thus the political schema refers to sets of cognitions of political concepts. The difference between political knowledge and political schema is facts organization. In other words, the pure factual knowledge an individual holds does not necessarily mean the organization of those facts within that individual.

In general, factual knowledge can be measured in two ways: open ended questions asking individuals to recall political information, and closed ended questions such as true or false questions which test not recalling but recognition. The close-ended questions are easy and interesting for the respondents than the open-ended ones. It should be reminded that recognition is essentially more important than recall. The big shortcoming of close ended-questions is overestimation of the amount of the correct answer people may know because they have a 50 percent chance to guess the right answer; as a result, reliability of close ended questions is less than that of open ended ones. Whether they are right or wrong depends solely on chance. Due to those threats, open-ended questions seem more suitable than closes ended ones.

The third way of measuring political knowledge, mainly used to assess political sophistication, is to determine the placement of candidates and parties or issues on the basis of an ideological scale (Calhoun, 1988; Lupia et al., 2005). In this kind of assessment, respondents are given the name of a candidate or a party and an ideological continuum such as the left-right continuum from 1 to 10. They then have to place the candidate or the party. However, what is measured here is not the knowledge of an

individual about an ideological standpoint of a candidate or party, but the perceptions of the main opinion of the population.

McLeod et al. (1999a) states that "current tests focus on rote memorization of names and factual details underrate voters' election IQ". They argue that citizens' knowledge used for voting decisions is underestimated. For two reasons, this critique does not apply to this research. First, this study does not look at how that knowledge is not used as a tool for rational voting decisions. Secondly, Graber (1996) claims that political knowledge measurement may suffer from errors and as a result could be underestimated.

As already mentioned, political knowledge is a key element in keeping democracy in the society and knowledge can be achieved through reading and writing. Also, as discussed in chapter one, social networks as one of the main sources of information in Iran are blocked, forbidden or censored. Based on the above-mentioned various ways to measure political knowledge, this study has chosen closed ended questions such as true or false questions to measure the political knowledge of an individual the next section of this chapter elaborates the second parameter of the study political attitude.

2.3   Political Attitude

Attitude is defined in psychology as a hypothetical construct which shows whether an individual likes an item or dislikes it. Attitude could be in the three forms namely positive, negative or neutral opinion about an "attitude object". Attitude object could also be a person, an event or a behavior. People may also be "ambivalent" to a certain target. This means that they may have both a positive and a negative tendency to an attitude at the same time.

Attitudes are the outcome of judgments and affect behavioral change; cognition is the base of attitude formation. Attitude is mainly formed in the individuals through their

observational learning from the environment. What an individual prefers for a thing or entity is defined as an effective response which is the psychological response. The intention of the individual is called his behavioral intention and the cognitive evaluation of that thing or entity is cognitive response which forms his attitude.

Dimitrova et al. (2011) also define attitudes as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor". This definition focuses on attitude expression and evaluation, which is the most suitable definition in this study. On the other hand, Carpini et al. (1993) distinct opinions and attitudes and believe that 'opinions should be defined as an overt expression of a covert attitude' which is used in this study.

Considering the above mentioned points, political attitudes are the attitudes of people about public life covered by political psychology, for instance views on nationalism, political conservatism, political liberalism, political radicalism etc. Here, one should consider the extent of learning attitudes through previous experience; of course other factors could influence an attitude over times that are beyond the discussion of this study.

Political interest and political efficacy both often determine political behavior in terms of political participation and party choice. Since the political system in Iran is not based on democratic political parties, political behavior in this research is discussed and measure political participation solely in terms of electoral participation and non-electoral participation. The relationship between political interest and efficacy should be examined first.

Verba et al. (1995b) states that the most important determinant of political knowledge is political interest, and Sweetser et al. (2008a) think that political interest is a component of political participation. Also Jennings (1996) refer to the only role that

political interest plays in the political knowledge acquisition. In their view, political interest is a motivation to search for information. Many researchers Jennings (1996), Kenski et al. (2006), Prior et al. (2008), and Verba et al. (1995a) define political interest as the intrinsic motivation to engage in politics, which could be internalized in childhood or adolescence through a process or it depends on immediate external stimulation, such as the excitement attendant upon most major national elections. Likewise, Cantijoch et al. (2008) defines interest as "the motivation to engage in politics consists of both the desire to learn about politics and the desire to participate in politics". The political interest is one of the factors in the current research and its relationship with political engagement and participation of Iranian students is analyzed.

Verba et al. (1995a) believe that in the terms of political interest, the most important indicator is the political participation because it stimulates the citizens to vote. Confirming this idea, Arceneaux et al. (2009) found in their study that those citizens who are interested in politics mainly participate effectively in the polls.

Political interest plays a role during campaigns, as Cantijoch et al. (2008) state that "the performance of citizens who are motivated just during the elections is roughly 15 to 20 percentage points lower than citizens who tend to be interested in politics in normal times". This is also the fact with the political participation of Iran student in the elections in the current research. If it is asked "How interested would you say you are in politics?", providing four options as an answer, those being: very interested, fairly interested, not very interested, or not at all interested, that would mean that then we have used four response categories. We have relied on an individual's self-report of their interest in politics. Also, this style of questioning leaves very few, if any, missing data.

As already mentioned, political efficacy is a determinant in political attitude and knowledge. Political efficacy refers to the trust individuals place in their government and

how they can understand and influence political affairs. Political efficacy is an indicator for the health of civil society. Low efficacy means citizens do not trust in their government, and also that they do not believe that their actions put an effect on the performance of the existing political leaders and vice versa.

Efficacy increases with age and correlates with social and political participation. Schulz believes that the political efficacy plays a significant role in political behavior (Schulz et al., 2005). Political efficacy is an important factor for the prediction of political participation (Zhang et al., 2009) and it confirms the outcome of participation (Brundidge, 2010a). Political attitude is, in fact, an abstract element, which has a momentous role in the formation of political environment in a society. As the two components of political attitudes, political interest and political efficacy would contribute in a great deal to acquiring political knowledge, which increases with age, and transform according to the social and political settings. What has not been argued on political attitude is how it increases/decreases one's level of political interest which lands in political behavior. This research studies the effect of social network sites on political attitude and it reveals how political attitude would as a result increase/decrease the level of political participation and interest.

In general, political interest and political efficacy lead to political behavior and mainly political participation, which will discuss in the next part.

2.4   Political Behavior

According to Eldersveld and Katz in 1961 (Huckfeldt et al., 1995), "political behavior means the behavior, actions and acts of individuals as the primary unit of analysis rather than characteristics of institutions such as a legislature, executive and judiciary". That is, political behavior mainly tries to explain a behavior, which is based on an unbiased, neutral point of view. Sampling, statistical analysis and interviewing are some methods

to study political behavior of individuals and actors in politics, voters, lobbyists, and politicians, as well as the relationship between the political actions of citizens and the political process in a democracy. In other words, it covers issues such as political attitudes, political participations such a protest, social movement, extremism, and the elections.

Political behavior is concerned with a number of processes, such as political socialization and political culture. Political socialization is the process of transferring political knowledge, beliefs, and attitudes from one generation to another through family, religious houses, schools, universities, the media, and political parties, etc. The other issue is political culture, which refers to the citizenry's awareness of political systems; ability in evaluating, accepting or rejecting the system. Political participation is another relevant issue, referring to citizens' engagement in the political affairs of a given country such as influencing the composition, policies, and practices of government, as well as funding political parties, voting, forming social movements, campaigning, attending meetings, protesting, and joining social movement. Moreover, political communication is also another covered issue of political behavior, which is disseminating ideas and attitudes about politics, and government, mainly under the government cares and control through the media (print and social media) to control public opinion. And finally elections are obviously vital to a democracy, and the involvement in such elections suggests organizing the elections, party registration, checking candidates' background, and campaigning

All the above-mentioned descriptions underscore the actuality of political behavior in the actual world. What has gone missing or has not been argued is the fact that all these behaviors can be expanded and located in cyberspace and at times they are the direct consequences of political knowledge in social network sites.

Of all these items, measurement of political participation and political communication would be the key concerns of the present research.

2.4.1   Political Behavior Measurement

Political participation as a behavior is defined as "an activity that has the intent or effect of influencing government action – either directly by affecting the making of implementation of public policy or indirectly by influencing the selection of people those policies" (Schulz et al., 2005). Sweetser et al. (2008a) also states that "voting, volunteering for campaign work, membership in parties, running for office or protest activities are all different forms of political participation". In order to measure the political behavior of a given society, one should consider these activities. On the other hand, according to Sweetser et al. (2008a) there are three factors that can be used to measure political participation. The first factor consists of the resources that individuals use to participate such as time and knowledge. The second factor is psychological engagement which includes efficacy and interest. The last factor consists of recruitment networks that lead individuals into political activities such as social movements, parties or church groups.

Therefore, according to Sweetser et al. (2008a) to measure political participation one should use 12 items to ask about participation in the elections (getting election information and voting), politics (activities like joining a party, writing letters to newspapers), protest behavior (such as painting slogans on walls, occupying buildings) and social activities (community volunteering, collecting signatures and money, participating in a march, rally or protest). The advantage of this sort of measurement lies in its ability to assess the diversity of political behaviors regarding the different political knowledge and political attitudes. On the other hand, the negative point of this kind of

measuring is the lack of one common measurement for different societies. What can be used as measuring of political behaviors in one society may not be used in another society because of different structures in culture and norms.

2.5   Social Network Sites (SNS)

There are many definitions of social network sites. MacKuen et al. (1987) note that social network sites refer to the online tools, websites and platforms that allow the people to share their experiences and opinions including photos, videos, music, insights, and perceptions with each other. Calhoun (1988) believes that these sites allow users or members to form and maintain new relationships. Boyd et al. (2007) also provided a detailed definition for the social network sites. They define social network sites as a web-based portal or service which allows its users to develop public or semi-public profiles for them in the bounded system. They can also interact with a list of other users that have a shared connection with them. Users of these services can also view and change their connection lists and the user lists which are made by others.

It should be mentioned here that in public discourse two terms of "social network site" and "social networking sites" are often used interchangeably. Boyd and Ellison (2007) did not use the term "networking" for its scope and emphasis and the fact that it emphasizes on the relationship between individuals who are strangers in most cases. On social network sites, strangers can still connect to one another despite the absence of physical contact. They can connect emotionally or intellectually with each other, make new relationships and develop the existing ones (Boyd et al., 2007), and keep the relationship with others (McLeod et al., 1999a). However, Scheufele (2000) argues that both social network sites and social networking portals such as Myspace and Facebook are for managing social connections, collaborating and exchanging content. Therefore,

although "network" is more accurate than "networking", social networking sites are for other related, but still different services.

This study uses "social network sites" instead of "social networking sites" because the initiation or maintenance of a relationship in SNSs is not its main goal. This study focuses only on the web-based services to: (1) construct a personal profile; (2) make a list of other users of the service, and (3) create and manage communication with the list of connections.

The sites most commonly used in Iran are Facebook and Twitter (Burns et al., 2009). However, since there are many limitations in accessing and using the Internet in Iran, so far a few studies have surveyed about using these social sites. As Naeli (2013) describes the "Internet in Iran started to gradually move beyond its initial aims and change to a platform for recreational and social activities as well as alternative media for raising the society's concerns" (Naeli, 2013). In his view, social networks usage in Iran depends on the purpose of the user that could be for entertainment or participation in social activities. Still, the potential of Twitter for information distribution in ways impossible to traditional social media cannot be denied. In the opinion of Twitter creator and cofounder Jack Dorsey, "Twitter is about approach, transparency, and immediacy" (Jennings, 1996). Twitter is popular partly because "It's free, highly mobile, very personal, and very quick. It's also built to spread, and fast" (Carpini et al., 1993). Obviously this is applicable to political knowledge.

2.5.1 Nature of Social Network Sites

Nowadays, Internet plays the role of a modern social platform which allows its users to interact with each other in a sophisticated way. Social media such as Facebook, Twitter

and YouTube are currently used to transmit multimedia content and interact with senders and receivers of media messages (Kenski et al., 2006).

The World Wide Web had two stages. Web 1.0 refers to the first stage of Internet where the whole web pages were constructed and had no interactive websites as it was only a one-sided communication at that time. Web 1.0 technologies had little interactivity due to its static pages. At the end of the year 2004, technologies of Web 2.0 or Web "read/write" were introduced and since then applications or modes of communication especially online community-centered application has been developed.

Technological advances from Web 1.0 to Web 2.0 led to the growth of new media. According to O'Reilley, Web 2.0 or the second generation of web associates mainly with social media (Lupia et al., 2005). Platt (2009) believes that the important feature of this media is participation in social and collective activities. New web technologies especially in real-time communication made it easy for most of the people to use social media and therefore, this ease made them more popular and accessible.

For Feenberg and Bakardjieva in Kenski et al. (2006) state that new media technology created an online social networking (a) to form an online group meeting (bounding), (b) to engage in community discussions (tracking), (c) to keep records for easy discussion (archiving), and (d) to be sure of the participant's identity (warranting)". The most common applications of the social media are chatting with others and sharing the same interests. Throughout the world, including Iran, individuals, groups, organizations, and communities adapted with this technology, which Cantijoch et al. (2008) call "online communities" and "virtual social life" and they are the main factors that the current research has looked into them to find the relationship between media use and political knowledge, behavior and attitude of Iranian university students.

Fraser and Dutta in Sweetser et al. (2008a) classify social networks into five groups:

1) Egocentric networks: sites such as Facebook to make a network of friends, for artistic creativity and self-expression by photos, songs, video clips and other contents;

2) Web communities: to make new groups and to maintain the existing community;

3) Networks of opportunities to collect members for professional relations on social networking sites such as LinkedIn and Plaxo;

4) Passion-based networks: to gather individuals with common interests or hobbies such as Goodreads and Shelfari as meeting places for fans of books; and

5) Media-sharing site: contents of the social network define their applications. For example, YouTube to share videos and Flickr for sharing photos.

What has not been put in the above categorization of socials networks is the rapid growth of social networks. With the advance of technology, there are an increasing number of mobile applications where interaction is the main purpose. Applications such as Viber, WhatsApp and Telegram can be a good replacement for social network sites.s

Social networking sites need four elements: a portal to register information and profiles; forum as chat rooms and friendly interactions; blog or the writing space to share with others, and gallery or photo sharing space.

2.5.2 History of Social Networking Sites

In 1997, SixDegrees.com was launched as the first social network site and it allowed its users to build profiles and enlist and surf their friends lists. Classmates.com was another site where students could connect with and surf other students in high schools or colleges, but they could not make public profiles or add their friends to the lists. Six Degrees was the first site that combined these features and helped users to connect with others and send them messages. Six Degrees had millions of world users, but it was closed in 2000 as a failed business.

A number of sites such as Asian Avenue, Black Planet, and MiGente were made during 1997 to 2001 for making personal, professional, and dating profiles. In 1999, LiveJournal allowed one-directional connections on users' pages. Keyword, an independent Korean virtual site, started its activity in 1999 added SNS features in 2001 when a new wave of SNSs began and Ryze.com was established as a business network though was not welcomed by the public. Immediately, Tribe.net as an entertainment site, LinkedIn as a business one and Friendster were introduced to users. Later on some other social networking sites were launched. Here two of them are discussed in details regarded by the present research.

Facebook is the largest and the most common social network site, which was introduced in 2004 by Mark Zuckerberg to connect with others (Boyd et al., 2007). At first, high school and college students adopted this social network and in 2007 it had 30 million users throughout the world (Sweetser et al., 2008b). In 2012, it had 845 million active world users (statistics from and www.alexa.com and www.socialbakers.com, 2012), and two years later the figure increased to 2.2 billion users in the world to post and share a status, leave a comment for self-expression and participate in discussions, and press like for expressing agreement for a content.

Twitter is an online social networking site in form of a micro-blog, which allows its users to read and write messages called "tweets". Registered users can send their own messages and read others, while unregistered users can only read them. Twitter was created in March 2006 and now it has become popular for more than 100 million users in 2012. Twitter called as "the SMS of the Internet" has more than 500 million users by 2014 while 271 million of them are active users (Verba et al., 1995b).

Twitter is used for different purposes such as to organize protests and civil disobedience. It played major roles in events from 2009 to 2011, such as Egyptian

revolution, the Tunisian protests, the Iranian election protests, and civil unrest in Moldova. Thus, the governments of Iran and Egypt blocked this service (Kenski et al., 2006).

Twitter is used in real time as an emergency communication system for breaking news. It has not been designed for high performance communication. Twitter is also used to track epidemics and how they spread (McLeod et al., 1999a). In addition, it acts as a sensor for automatic response to natural disasters such as bush fires (Earle, 2012; Power, 2013). According to various studies, Twitter generally has influences on instant communication (Calhoun, 1988), education (Lupia et al., 2005) public figures and world leaders (Dimitrova et al., 2011), religion (Father Roderick, 2013), and transmitting information (Verba et al., 1995b).

2.5.3   Social network sites in Iran

The Internet started to be used in Iran immediately after it had been introduced, but the government has always been concerned about the Internet and its possibilities and has placed limitations upon it. Just like radio, television, cinema, video, and the satellite networks, the Internet has experienced the elimination policy of the Iranian media. This policy means that information on the Internet and cyberspace as well as millions of sites and blogs are filtered to control and limit their use. The government has also decreased the bandwidth of the Internet so that its application has been mainly for entertainment purposes. One of the main challenges the government has faced with the new technology is the Internet use and especially the social networks during presidential elections. The Internet was seriously used on a widespread scale in electoral matters first in the 9th presidential elections of the Islamic Republic in 2007. Many forms of media, from the Internet to radio and television as well as in print were used to cover and support the

general elections, report information and campaign and communicate with people on the part of all the candidates.

The backlash from the Iranian government against the coordination of criticism among Iranians on a national and global scale was considerable, and showed the ability to attack and harass not only people within Iran, but also the Iranian Diaspora at large, often as a means of intimidating their relatives in and outside of Iran (Carpini et al., 1993). Other unprecedented capabilities displayed was not only the blocking of social network sites and video sharing sites, but the curtailment of email services and the general slowing down of Internet speed within Iran itself. At the very least, the state proved that it could fight back even against new technology with considerable efficiency and force.

The above piece of research best illustrates the effects of social network sites on political attitude and political behavior. What the researcher believes is taken from social network sites with anti-government contexts. The ruling government used the same digital interfaces to post erroneous information about protest meeting times and location. After all these events, the government decided to filter the Internet. Filtering in Iran is applied on the basis of the existing laws and it includes websites from pornography to politics. Filtering the Internet in Iran is legal, but its trends and policies, especially for political and social sites are unclear.

As the Deputy Speaker of the Iranian parliament announced in 2013, Iran with a total population of around 78.5 million in 2014 has about two million Facebook users while half of them live in the capital. Iranian government has regarded social networks as Zionist instruments and tools for soft war against her so it has blocked the networks after the 2009 election to prevent the opposition movements being organized on the websites. Facebook alone was blocked for four years up to September 2013 when the government decided to block both Facebook and Twitter (Taylor, 2013). The reason for Facebook

filtering is mainly because Iranian government sees the Facebook as a media controlled by its enemies such as Zionist regime and has been used as a cultural raid from Western countries.

There are no clear study regarding Twitter in Iran, but during the presidential election in 2009 in Iran, *The Guardian* (2010) writes that this site was called 'Twitter Revolution', therefore the government responded to it and filtered or blocked many sites in Iran, including Twitter, YouTube and Facebook. Iran also decreased the Internet speed and arrested prominent bloggers. In addition, cyber army of Iran attacked reformist websites.

Reviewing the references and surfing in the Internet reveals that there is not precise statistics about the number of YouTube users in Iran. However, as Lupia et al. (2005) discusses, a tempestuous relationship has always been between Iran and its access and use of YouTube. In December 2006, YouTube was considered immoral and completely banned in Iran. Up to 2009 and due to the controversial elections that returned President Mahmoud Ahmadinejad to power, access to this website was restricted and it was censored, but again and following the release of the "Innocence of Muslims" film in 2012 it was completely blocked in line with Google. On June 2013, Hassan Rouhani, Iranian President used Twitter and focused on the role of the Internet in determining the country's future (Nielsen et al., 2014). Despite Rouhani's statements, the government repression makes it difficult to use the Internet in Iran to its fullest possible extent. The Iranian government has always restricted YouTube access as a platform for self-expression.

On December 09, 2012, the Iran state television reported that since YouTube content is against Iranian policies, the Islamic regime of the country has launched its own website for video sharing (http://www.mehr.ir) called 'Mehr' in the Persian language to compete with YouTube, to attract Persian-speaking users, and to promote Iranian culture.

People can upload their short films on this website and access other media products produced in Iran. This country tries to establish and run a kind of so-called 'National Internet', which is supposedly without any anti-Islamic content. However, the national Internet may not be able to stand against the access to the global Internet because many users in Iran use Virtual Private Network (VPN) to break the censorship.

Reviewing the Facebook, YouTube and Twitter in Iran reveal that the country has always tried to prevent the people accessing these three websites together with other foreign websites undermining the Islamic regime to prevent transmission of political information throughout the society. But the question here is to what extent the social networking sites could play a role in political issues in a society that makes some countries to filter them. The next section tries to find a probable relationship between these two parameters.

2.5.4 History of Internet Filtering in Iran

Iran, a country with approximately a population of 80,840,713 (July 2014) experienced an increase from 77,447,168 people in 2013 and 1,022,725 people compared to 2012 (countryeconomy.com). In 2012, there were 43 million Internet users in Iran, making it the first rank in the Middle East (payvand.com).

In June 2001, the supreme leader of Iran issued the policy of computerized information networks to President Mohammad Khatami (Taraz, 2012), and in 2002, filtering was applied in practice. A committee including three members, i.e., a representative of the Ministry of Information, a representative of Media and Broadcasting, and a representative of the Ministry of Culture were in charge of filtering and control the Internet. Later on, the representative of the Secretariat of the Islamic Council and the representative of the Islamic Propagation Organization joined the committee which

prepared a list of 111,000 banned websites for the Iranian Internet service providing companies to filter. Then the committee decided to block websites in Iran and the Ministry of Telecommunications and Information Services Data Communications execute the decisions.

After the selection of Ahmadinejad as the president, Saffar Harandi, the Minister of Culture, approved a project to organize sites, under which all the websites and blogs of Iran must register their complete information and the authors work on a website that the Ministry of Culture had launched. The plan got negative feedbacks and was stopped. Then, the Ministry of Cultural gave its approval to Revolution Council to approve and then to filter much more sites. Many believe that this is illegal and the Council of the Cultural Revolution is unable to approve it. In August 2006, the government issued the regulation of "Organizing the activity of internet sites". According to these regulations, all Internet sites must be registered in the Ministry of Culture. The items banned to be used in websites include content against public decency and morality, against Islamic sanctities, against public peace and security, against the authorities and public institutions, content used to commit cybercrimes, content that stimulates, encourages, or makes a call to commit a crime (other offenses related content), crime-related audiovisual content and intellectual property, criminal content related to parliamentary elections, and criminal content related to the presidential elections.

Filtering in Iran is based on two principles: the principle of freedom of expression and information, and the principle of observing the Islamic values and rules of law (Aryan et al., 2013). That is, no one could release information under the freedom of expression, or release information, which is considered against public morality and national security. In the case of the current study, these principles are considered as the main factors that

Iranian government considers in filtering Internet websites and applications including the social media.

Filtering could be based on the answers to three questions: "what", "Who" and "How". But what are the weaknesses of the filtering system in Iran? There is no doubt that filtering and refining the criminal content in the country is necessary, but the problem is this that filtering malicious content prevents users from accessing safe and sound content. Two issues arise from the filtering. The first one is the quality of access which becomes poor and as a result accessing healthy information will be slow; and second, applying access restrictions has been in such a way that users want to use secure communication and safe Internet, but they do not have any options and their access to health information is restricted while there is no other alternative for them. In other words, the problem in filtering in Iran is that filtering does not classify the audience. For example, filtering that a state organization uses follows the same trend for filtering the site that a student refer to.

In sum, filtering in any country is accepted to some extent but the key question is what should be filtered? Different countries have different strategies and various criteria in filtering but at time filtering would impede the general people from having access to sound information. What happened in Iran in the context of post-2009 Presidential Election is absolute filtering of social network sites where people are not allowed to use these sites? Anchored within such discourses, a great deal of sound information is also filtered in Iran because there is a fear that people would gain political knowledge against the government. Utilizing the theoretical framework, this study tries to prove that Iranian university students are not just passive consumers of media rather they know what sorts of information they need from the social media. As they are not passive Internet users, filtering cannot be a choice since there is always a way to

circumvent it and then spread the political information through the social network sites. The theories contribute in arguing that absolute filtering is not recommended and that social network sites have a dramatic influence on Iranian university students' political knowledge, attitude, and behavior.

2.6   Political Behavior and Social Network Sites

According to supporters of mobilization thesis, social network sites could be considered as the first medium that has been successful in reaching the politically inattentive (Cantijoch et al., 2008). The users of these sites can easily access political messages with little effort, cost and time. They can also collaborate and coordinate in politics with others and have their voice heard in the society (Sweetser et al., 2008a). There is usually no need to any intensive effort to perform political activities on SNSs such as joining an online group or posting messages with political contents. However, the benefits of these technologies do not necessarily counts for the political outcome, unless some individual motivations (especially information seeking) trigger those attributes or accompany them (Smith et al., 2008).

Zhang et al. (2009) reported a strong positive relationship between various types of social interactions in existing and new online networks and democratic behaviors and attitudes. They concluded that "virtual civil society" represents an extension of the past patterns of social engagement through a new medium (p. 634). The current study is also going to analyze the social and political interactions in the online networks inside Iran to depict a precise picture of the situation in terms of political knowledge and civic engagement.

In other study, Brundidge (2010a) construct two scales measuring bridging and bonding online social capital, which are found to predict various types of off and online

participation. They show a significant effect of bridging virtual social capital on online participation and of bonding on offline political activities. The authors argue that online interaction within new and more diverse social networks increases the flow of political information and exposure to new initiatives such as e-petitions or joining of mass e-mail campaigns. Online interactions that occur within a person's established networks, however, are more likely to link to offline behaviors that increase ties to the local community.

Huckfeldt et al. (1995) in a study on US college students compared the people who take their news from online social network sites and those who obtain the news from other sources. They found that those people who get the news from other sources than social network sites have more increased political participation. MacKuen et al. (1987) in another study on students found that there is positive correlation between using Facebook for civic and political purposes and the offline participation. This can add to the justification for the current study which is going to analyze the correlation between online news sources and SNSs and the political knowledge, behavior and attitude of Iranian university students.

Further, Sweetser et al. (2008a) found that intensely engaging with one's Facebook community facilitates behaviors and activities that spur political participation of all kinds. This relationship is robust to model specification, even including time spent on Facebook in general and exposure to political information in that venue. This is important in that it shows that much of what we know about how offline networks spur political participation may still inform our understanding of similar relationships in the online world. Moreover, it shows that Facebook use can and sometimes has a positive effect on the political participation of its users.

At the same time, Calhoun (1988) also found that daily use of SNSs did not relate to social capital, civic participation, as well as online and offline political participation. It seems these researchers mean participation as using SNSs for news (i.e., using SNSs to be informed about current affairs and the local community) and online network size (i.e., number of people they talked to via the Internet). In line with these researchers it should be said that people use social media for different purposes and frequencies of use of SNSs do not enhance political participation. While specific use of these sites for politics or public affairs could lead to promoting participation.

McLeod et al. (1999a) as well investigates the relationship between political participation as a political behavior and social networks. He states that in recent years the study of political participation is strongly related to social networks since it is thought that social networks deepens our understanding of the factors that lead the public to express themselves in the democratic process. Campbell (2013) assessed political participation in terms of both individuals and social networks and found that the individual factors correlate with educational level, religion, political knowledge, political conviction, and civic duty feeling of the participants. This study, however, does not consider the individual style in using social network sites and its effect on the extent of their political knowledge.

Likewise, Scheufele (2000) discuss about the relationship between use of Facebook and political participation as a political behavior. They examined network size, structural heterogeneity of the network, the time spent on Facebook, the accessibility of political information, and direct connection with public political figures and actors who are in relationship with online and offline political participation of youth. Analyzing the survey of 774 university students, they showed that a direct connection with public political figures and actors and the exposure to shared political information could lead to

the most remarkable participation. The current research is also going to show that if this phenomenon has occurred in societies like Iran or not.

A study by Verba et al. (1995b) has provided fresh empirical support for the contention that social uses of the Internet may be helping to foster political engagement in the offline world in which online social interaction does appear to act as a stimulus to real-world participation. The hypothesis in the current research also is to grasp the idea that SNSs and online social interaction could lead Iranian university students into political engagement as a result of using the online technologies.

To date, there are few published studies on the social networks in Iran. Erfanian et al (2013) studied and determined the rate of using the social networking sites among the students in Birjand University of Medical Sciences during 2011-2012. In the descriptive analytic study with participation of 400 students who were randomly participated, they found that demonstrated that a considerable percentage of the participants were the member of social networking sites.

In another study, Shabani et al (2013) found that the most prominent motivations to join Facebook for the Iranian users are pleasure, social relationships, acquiring information, identification, monetary and idealistic goals, and improving matrimonial life. They also found that users tend to use Facebook for their political interests, gaining reputation, remaining in touch with their family, and even to remain anonimous because of security concerns and political attitude.

In the analysis of the politicians' perceptions on social network use in Iran, Naeli (2013) found that that Iranian politicians have started to look at social media more as an opportunity rather than a threat. This change of view could be caused by two factors. First, the politicians have become mindful of the tremendous opportunities social media

can provide them to reach out to a greater public support. Second, they have recognized the fact that technology finds its ways to people's lives, in spite of all restrictions.

By breaking down the usage of social network sites into three types or forms (entertainment, social interaction and information seeking), MacKuen et al. (1987) show the way that motivations in individual-level can be deemed as an explanation for the complex mechanism by which social network sites are in relation to people's participation in the social and political process. MacKuen et al. (1987) found that using SNSs as an informational source had a positive relationship with demonstrative participatory behaviors whether online or offline, but there is no relation between SNSs and the collective participatory behaviors. There is a positive relationship between using SNSs to find information on public affairs and to follow the political issues, and to keep up with updated election information. Considering the fact that some of the social network sites are increasingly considered as the supplement to the traditional media in their provision and sharing current information (Calhoun, 1988; Carpini et al., 2005; Lee et al., 2014), it can be logically inferred that such networks act as a good source for those people who are politically attentive and they seek for further information. As an example, Facebook can satisfy the informational taste of its users mainly with the features such as ''News Feed''. There is a positive relationship between social interaction uses and online expressive participation, but such relation does not exist with regards to the offline expressive participation or collective participation. In the same pace, there is a negative relationship between using SNSs for entertainment purposes and online expressive participation and it has a negligible connection with the other two participation types. The outcomes imply that the technological benefits of social network sites may not lead people to political participation when they are reluctant to seek information through such networks.

Therefore, the proposed hypothesis is:

H1: Social network sites use by Iranian university students have a significant positive effect on their political behavior.

2.7   Political Behavior and Political Knowledge

For many decades, political knowledge has been known as an integral part of public viewpoints. So far, many definitions of political knowledge have been developed, mainly as factual information about politics and government that individuals may have. Carpini et al. (2005) define this knowledge as "the range of factual information about politics that is stored in long-term memory". They divide political knowledge into categories of "rules of the game", "players", and "substance" (e.g., domestic politics). In their definition, the concept of 'range' can be branched into 'broad' and 'specific' aspects. That is, individuals could be specialists and informed about particular aspects of politics and policies in certain circumstances, such as knowledge about national political institutions and processes, knowledge about a particular president and knowledge about politics in general are specific range of political knowledge. Or individuals could be generalists with broad information about politics. For instance, Americans have more knowledge about the 'institutions and processes' than about 'people and players'. To furnish an example, 99% of American people could tell who the president of their country is, but just a few of them know which party is in the charge of controlling the House (Kenski et al., 2006).

According to Kenski et al. (2006), political knowledge is a sub-division of 'political awareness', 'political sophistication', or 'political expertise'. In his view, political knowledge is an important source of people's attention to an attitude or opinion. In fact, many theories about the formation and change of public opinion are developed on the basis of their political knowledge. In addition, a key concept in a democratic theory is political knowledge. Since the time of Plato in ancient Athens, scholars have been

asking whether the knowledge of the people is sufficient to allow them to play a significant role in ruling society. It would seem that many elite minds throughout history have been pessimistic about this possibility. (Carpini et al., 1993) believes that political knowledge is a primary variable in any research on political communication. In the democratic nations such as the United States, the study of political knowledge has a root in democratic theory. There is an assumption that if citizens have to participate effectively in a democratic society, they first should be well informed. In carpini and Keeter's definition, political knowledge can refer to political sophistication or political expertise; however, knowledge is generally defined as correct information either about an issue or about the structural relationships among cognitions.

Political knowledge can be examined as a dependent variable for example, depended on the media effects but knowledge can be examined as a predictor, a moderator, or a mediator in a communication. That is, political knowledge may lead to political discussion, mediate the relationship between political participation and using the media.

Interpersonal communication hold an important stand in the political scene and youth has found it particularly as an influential media compared to the traditional ones as the source of information (John & James, 2007). Expression in general and political expression secondarily is important and it considered as a key component to the political participation. Internet as a medium for public expression and a source of political information has brought up complements to the traditional media in influencing political expression, and these variables have increased the behavioral outcomes like political and civic participation in return (Shah et al., 2007). In addition to political behavior, this study is also concerned with people political knowledge and attitude. The mass media have been heralded as an important source of political knowledge (Lupia et al., 2005). Scholars have shown that there is a much lower confidence in the young people aged 18-25 in their

political knowledge than other members of the society (Cantijoch et al., 2008). Sweetser et al. (2008a) found that discussions with friends and family and using the Internet are the top sources of political information for young people. Smith et al. (2008) also found that using media and especially the Internet facilitates political and civic engagement.

Civic participation of an adolescent during high school and his or her political knowledge and efficacy is formed in the political environment in which he or she is raised in Sweetser et al. (2008b) and the influences of the political context on this person can lead his or her voting (Kenski et al., 2006; Verba et al., 1995b). By employing SNSs data and conducting a large scale longitudinal study on social integration in high school and political outcome afterward, Lupia et al. (2005) found that there is a positive relation between the perceptions of the participants and their peers and increased trust in government, increased partisanization and volunteering and vote casting in the early adulthood. This is the case in the current study who deals with the young university students who are in the early adulthood and their participation in the political process is affected by the online media.

The desire for the political participation is often increased with the political conversation (Calhoun, 1988) because it is with the talk that opinions are crystallized. The other factor that helps in empowering the citizens is deliberation (McLeod et al., 1999a) and it leads the people to more political activities. According to Dimitrova et al. (2011), there is a positive correlation between political knowledge and deliberation. High quality pinions could be developed with political conversation because of the refinement that is inside the dialogue (Cantijoch et al., 2008). Sweetser et al. (2008a) believe that political discussion and conversation creates a deeper understanding of the political facts in the people and therefore it influences the individual's desire to take part in the political

process. This engagement can even lead the individual toward confidence in the government policies.

Several scholars from different fields of study have been actively looking into the reasons that encourage citizens to use the technology for political purposes (Smith et al., 2008; Zhang et al., 2010). Meanwhile, some polls on the public opinions have shown that American people have become more active online. The research has shown that 85 percent of the American people go online and 78 percent of the American users use the technology to get news and specifically 61 percent of them look for political information and news (Cantijoch et al., 2008). Brundidge (2010) believe that a person's level of knowledge depends on labor and pre-conditions. Knowledgeable people are those who have a great deal of information and are able to check the government. Checks and balances are necessary for a functional democracy. Moving up in the political hierarchy and preventing leaders and those who govern us from abusing their power requires knowledge. Knowledge is power in both politics and economy. Democracy is preserved and continued in a society where people have knowledge of the history of their own country and that of other countries and therefore, they are able to see other leaders and to evaluate performance of their leaders in detail.

The existence of other political systems as a yardstick or basis for comparison is best done with a real understanding of the details of those foreign systems. Reading, writing, history and geography are useful in this regard. When teaching factual knowledge is insufficient or limited in available time, then it is all the more important that information be well organized and easily accessible. Education should be than teaching facts for rote memorization. It is a simple fact that many people may be quite intelligent, but have very poor memory. In order to compensate for such common weaknesses, people should learn to access, store, and retrieve the necessary information, to act and judge, and to generally

be aware of authentic facts. These are all necessary parts of an "indirect democracy" because people select representatives to decide for them. Certainly it is better that people select knowledgeable representatives rather than charismatic but ignorant ones.

However, discussion about the controversial topics is stimulated with diverse social networks. Previous studies have shown that citizens who are active in heterogeneous discussion networks are more likely to have participation in the political activities and community forums (Sweetser et al., 2008a). Heterogonous network seems to increase the demand for the information on wider and different topics. Studies suggest that positive democratic outcomes like political knowledge could be generated with the political conversation with people of different opinions (Brundidge, 2010a; Zhang et al., 2010). Huckfeldt et al. (1995) claim that development of political attitude in a tolerated way can be a result of face to face discussion. It is also apparent that discussion among the people of similar and different viewpoints contributes to political activity at many levels.

According to Dalton (2000), basic assumptions about the electorates' political abilities such as their understanding of the political matters, their level of knowledge about them and their interest set the stage for the political behavior of the citizens. When voters understand the options they can make more meaningful decisions. If citizens are going to control or influence the actions taken by their representatives, they should have a sufficient level of knowledge about the political system workings. As an example, Almond and Calhoun (1988) claimed that for definition of a political culture cognition is an important factor. These scholars endeavored to find the variations in political understanding and awareness across five nations.

The way that citizens process the information related to politics is examined by schema theory (Scheufele, 2000). Schema helps in processing new information and in

organizing knows that already exists. Schema theory argues that citizens in making their political decisions use their own structural and logical beliefs in specific domains and this happens when they have not a complete knowledge on all the political topics (Dalton, 2000). A third of youth who took part in the most recent elections and they were polled reported that they have used SNSs as their source of political information Verba et al. (1995b) and this suggests that such sites are influential in the political behavior in some ways. These websites affect the young people both in their identity formation, in their expression and in the exchange of information. However, despite the current polls and results, early attempts to find out about the effects of this potential on the political behavior outcomes had no positive results (Carpini et al., 2005; Jennings, 1996).

Recently, Park (2013) asked if Twitter actually motivates involvement in politics. Does Tweeting lead political opinions and engagement? This study attempts to emphasize on the role of opinion leadership on Twitter and investigate the interrelationships between Twitter use motivations, opinion leadership, and political engagement. It finds that Twitter opinion leaders have higher motivations to search for information, its mobilization, and public expression. In Park's view, mobilization and public-expression motivations mediates the association between the frequency of Twitter use and perceived opinion leadership. Thus, it could be said that using Twitter or media use motivation does not help individuals to engage in political activities, but Twitter opinion leadership plays an important role. Likewise, in Kunovich (2013) point of view, political knowledge focuses on electoral changes. Based on data analysis of the election in the US, Kenski et al. (2006) and Lupia et al. (2005) also support this idea that different election results could be due to an increase in knowledge. However, Smith et al. (2008) study shows that changes in knowledge were ineffective in the results of the election in Moldova or Romania.

According to the literatures, the related hypothesis is considered as:

H2: Political knowledge of Iranian university students has a significant positive effect on their political behavior.

2.8   Political Behavior and Political Attitude

Civic participation of an adolescent during high school and his or her political knowledge and efficacy is formed in the political environment in which he or she is raised in Verba et al. (1995a) and Carpini et al. (2005) the influences of the political context on this person can lead his or her voting (Jennings, 1996; Kenski et al., 2006). By employing SNSs data and conducting a large scale longitudinal study on social integration in high school and political outcome afterward, Lupia et al. (2005) found that there is a positive relation between the perceptions of the participants and their peers and increased trust in government, increased partisanization and volunteering and vote casting in the early adulthood.

Interpersonal discussion is an interesting topic for the researchers of mass communication because discussion on various subjects plays an important role in creating the dialogue that is necessary for a firm political deliberation (Postelnicu et al., 2008). Social interaction can be a medium for transmission and exchange of political information. Therefore, such discussion can play a major role in learning political knowledge and formation of attitude and behavior (Huckfeldt et al., 1995; MacKuen et al., 1987). Studies have shown that interpersonal discussion on political topics increases the individual political involvement (Calhoun, 1988; McLeod et al., 1999b) and the factual knowledge that he has on politics (Dimitrova et al., 2011). McLeod et al. (1999b) found that those people who took part in frequent political discussion on a specific issue were more politically sophisticated and they had a better understanding of politics.

A healthy democracy needs to enjoy from the electorate that is interested in the political process. Higher interest in politics has a link to increased level of political activity (Verba et al., 1995b) and political knowledge (Carpini et al., 1993). In turn this is the political knowledge that promotes further active participation in the political process (Carpini et al., 1993; Jennings, 1996). This knowledge can be gained through various medium such as education, news media and interpersonal discussion (Kenski et al., 2006).

Lupia et al. (2005) claim that using online communication has effect on the young adult's participation by stimulating their political interest. However, other scholars are concerned that Internet will only widen the gap between the interested and non-interested groups. For instance, Carpini et al. (2005) suggest that it is more likely that those people who have already greater levels of political knowledge and interest are the users of the websites who are looking for the political information.

Several studies on the motivations for using SNSs have found that social network websites are used primarily for interaction needs (Papacharissi et al., 2008; Postelnicu et al., 2008; Sweetser et al., 2008b). As an example, Postelnicu et al. (2008) found that the people who visited a candidate's profile in Myspace have primarily aimed to connect with other supporters and find what others say about him and at a lowest level, they engaged in the discussions with the candidate.

Kim et al. (2012) suggested that Internet is a medium that increases the citizens' participation in the political environment. According to him, SNSs are different from other mass media in the fact that they provide a two-way communication channel which enhances the feedbacks and encourages and increases the interaction between citizens and public servants Kalaboukis et al. (2011) also found that one of the usages of social

networking in line with best international practices is the delivery of knowledge and education.

Richey (2008) has studied how political knowledge in social networks influences voters and his research show that social networking sites exert a powerful influence on voters. People with political knowledge are more influential and help the voters with low information to choose the candidates wisely. In his view political knowledge in social network influences the vote choice. Yet, in determining the extent of the influence, his study has not examined the different extent of the knowledge the network members have. Social networks are effective in the distribution of political information and promoting political change which both certainly depend on the context as a source of ideas, discussion, and comments not found in the traditional media.

To find a probable relationship between use of SNSs and political knowledge, Baumgartner et al. (2010) and Kim et al. (2013) measured daily or weekly exposure to SNSs and found that there is a significant relationship between being exposed to the social network sites and online political expression, but there is no relation between such exposure and the political participation such as signing petitions, voting or calling a politician in the offline mode. These researchers focus on the frequency and time of SNSs use but not on their effects in practical political activities.

Investigating the relationship between social networks, political knowledge, and participating in election campaigns, Dimitrova et al. (2011) found out that digital media use has weak effects on political learning, but remarkable effects on political participation. In an effort to reveal the relationship between using internet and political knowledge in Spain, Gajora (2011b) believes that the rise of online activity leads to political knowledge increase, which promotes the motivation for political participation. Gajora found a linear relation between online activity and political knowledge. In his

view, new digital media have increased media availability and content selection. So those who use the Internet frequently have more knowledge about politics than non-users. Furthermore, highly educated people have more knowledge as they use the Internet more than low educated ones. Thus, new media promote the political knowledge gap related to education. However, there is a little difference in the knowledge of citizens with high and low levels of political interest in frequent Internet users of the social network sites and non-users. Gajora's finding provide a complex picture of the use of social network sites and contradicts this idea that increasing media use leads to the increase of political knowledge.

In result the proposed hypotheses are considered as:

H4: Social network sites use by Iranian university students have a significant positive effect on their political knowledge.

H5: Political knowledge mediates the positive effect of social network use by Iranian university students on their political behavior.

2.9   Political Knowledge and Social Network Sites

Cantijoch et al. (2008) has discussed five major contextual features of the SNSs that show the complexity of such networks in communication mediation. First feature is the accessibility to the originally published material for a long time, compared to the unmediated public spaces. Second, the information about the social network sites are stores and can be restored or searched through their own portals and the search engines. Third complex feature is the replicable nature of digital content, as Cantijoch et al. (2008) says "it is quite simple to copy and paste anything that is said and move it from one context to the other in a manner that makes it difficult to distinguish between the copy and the original" (p. 242). Forth feature is the invisibility of the audiences in the SNSs

and communicators in these networks should face it because they cannot determine the future potential audience for their online performance. And finally, social network sites have changed the scale of the actions by overcoming the restrictions that are in the space and time. To clarify, "There is no additional structural cost between communicating with ten and broadcasting to millions"(Cantijoch et al., 2008). These five features should be considered in the time of discussing the democratization potential of SNSs as they undoubtedly contextualize the manner of political communication.

In Sweetser et al. (2008a) opinion, social networking is a platform and a kind of practice that have features such as community building, collaboration, information sharing and ultimately participation in the decision-making process. Smith et al. (2008) also in a similar way described SNSs as a class of tools and specifically network tools that encourage individuals to learn from each other and together while they can keep their control over identity, presence, space, time, activity and relationship. Social network sites like Facebook are developed for general audience and population while there are other websites that their audience is a particular niche. YouthNoise.org and TakingITGlobal.org are examples of social networks that offer services for the advocates and people interested in social issues like human rights and poverty (Zhang et al., 2009).

According to the scholars, technical and cultural features and specifications that SNSs have among the various digital platforms in mediating the political communication are the essentials for the politicians (Boyd et al., 2007). Similarly, Brundidge (2010a) claimed that as the digital mediation allows the politicians to make direct connection with the citizens, they became interested in the recent technology to cultivate such connection and represent themselves in the political realm. The studies conducted by Mattew Baum on the political effects that "soft news" in TV has on the population. (Huckfeldt et al., 1995; MacKuen et al., 1987) showed that people are easily influenced by the soft news

even when they are not actively searching for the political information. While the politically oriented websites have their own audience who are actively political people, SNSs may bring new voters especially the younger generation (Calhoun, 1988).

Scholars believed that the audience engagement that is created by the SNSs offer a mechanism by which the users find an increased and ongoing political engagement and dialogue among themselves (McLeod et al., 1999a). In a study that was conducted about the 2008 elections, Scheufele (2000) found that with the movement of information even a small piece of writing with few characters in the social network sites can reach a nation because it travels "from idea, to digital post, to a national audience with very few gatekeepers or powerbrokers weighing in on that information" (p. 151).

It is found by some researchers that that social media has casual effect on the political knowledge and they explain it with "surprise effect" that unexpected political content has an effect on those people who are not interested in politics but by screening the political information the political knowledge of this group of online users is widened (Cantijoch et al., 2008; Sweetser et al., 2008a).

In the survey conducted by Pew Internet and American Life Project, it was found that 40 percent of those users who are using SNSs are engaged in some political activities including registering as a friend to a candidate or getting information in order to discover the political affiliation and interest during 2008 elections (Smith et al., 2008).

Zhang et al. (2009) though has shown that the great impact that Internet has on the civic participation is not at the same level for the elections or government affairs. Sometimes Internet plays the role of catalyst for creating civic communities and it is also a tool for participation but the effect of Internet on the type of participation depends on how users use Internet. Using Internet in an information-oriented way such as finding information gives the user an opportunity to civic participation and further encourages

him for political participation. However, recreation oriented use of Internet for activities such as online games, chat rooms and the like can help users to establish online social interaction and break the strong ties that they may have with the offline communities and this can eventually lead the user into separation from civic engagement (Shah et al., 2001).

2.10 Political Attitude and Social Network Sites

Social network sites promote norms of trust and reciprocity among the users by creating the feeling of being connected to others and increasing their knowledge about the others and this eventually can result in motivation for the participation in the political process (Valenzuela et al., 2009b). As an example, in case of Facebook, the existing ties and communities of its users is reinforced by remaining updated about what is going on with their contacts (Cheung et al., 2011; Smock et al., 2011). Such kind of desire for social interaction may lead into "inadvertent encounters" with the political information which is disseminated through social network sites (Ancu et al., 2009). Using SNSs for social interaction can have a minimum effect on political engagement and participation at least (Zúñiga et al., 2014). In the considerations for the political purposes, SNSs can be a good shelter for those individuals who are marginalized and those social groups which were traditionally deprived from the mainstream media and political debate and they could not be exposed or advance their interests (Downey et al., 2003). Vitak et al. (2011) concluded that "Political activity on Facebook (e.g., posting a politically oriented status update, becoming a 'fan' of a candidate) is a significant predictor of other forms of political participation (e.g., volunteering for an organizing, signing a paper or online petition)" (p. 107).

The big difference between SNSs and other media is in their number of audience that consumes political information. While most of the media have a limited audience,

SNSs give an opportunity to the citizens to interject their opinions into the political atmosphere, to reached out and to respond in ways there were not possible before. Hanson et al. (2010) claimed that SNSs encourage citizens to "create their own political content, distribute it online, and comment on the content created by others" (p. 585). A study by Pew prior to 2012 Election Day showed that almost one-fourth of registered voters used SNSs such as Twitter and Facebook to discuss and find their voting selections (Rainie et al., 2012). According to a report by Pew research center (2012), a good part of the contents that are available in the social network sites are not similar to the individual's perspectives. This means that majority of users in the social network sites (almost 73 percent) disagree with their friends' opinions and feedbacks on the political posts and 38 percent of them are actually surprised of the political opinions and discoveries that are expressed by their contacts.

These results are in line with the recent discussions by the scholars on the impact of the sociality in its high levels and expansive networks on the diversification of the political discussion (Brundidge, 2010b; Kim et al., 2012; Kim et al., 2013). However, the important concern is the extent that the increased exposure to disagreement and differences in the ideology can effect on the users' willingness to express their political opinion in the social media context. Some studies (Kalaboukis et al., 2011; Kim et al., 2013; Wojcieszak et al., 2009) on one hand showed that being exposed to different political discussion may create some deliberation processes in the online mode (Stroud, 2010; Sunstein, 2006). Other studies (Mutz, 2006; Valenzuela et al., 2012) though show a negative correlation between being exposed to disagreements and participation in the political discussion. Similarly, Pew Research Center (2012) has found in a research that majority of users (68 percent) are silent when they read disagreeable political contents

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that are shared by others and 22 percent of them decide intentionally not to express their opinions on the subject in order not to offend the others (p. 8).

Ultimately social media offer a space where the visibility of the people causes social influence (Kwon et al., 2014). Presence of others can constrain or encourage the individual behavior and communication in SNSs can create a novel type of sociality (Papacharissi et al., 2011) that is a reduced level of anonymity and higher levels of peer to peer monitoring and the online presence can bring intensive networking opportunities with a greater speed with the offline social contacts. However, when social network sites offer more sociality, there are more interpersonal and group influences. One risk is that as a result of the interplay between argumentative sociality and media advantages, there may be an increased social influence on the propagated political ideas and beliefs that undermine the favorable views equally and quickly. In other words, it is possible that a spiral of silence (SOS) process can be caused by the political communication that is undergoing in the highly sociable platforms such as social network sites (Noelle-Neumann et al., 1993). In any case, the mechanism that control and affect individual's political opinions in the network exposure has not been fully explored yet.

Pew Research has reported that one third of the users in SNSs are not aware of the existence of incongruent political opinions in such networks (Kenski et al., 2006). Noelle-Neumann suggested that such inconsistent views can make users reluctant about sharing their political opinions (Lupia et al., 2005). Those who receive a high level of disagreement from the majority in the social network sites may become reluctant about sharing the political comments because of the possible negative feedback and comments that they may receive. Scholars claimed that a climate with diverse opinion decreases the participation in political discussions (Eveland et al., 2009; Valenzuela et al., 2012). The negative correlation between exposure to different opinions and political participation can

be due to informational influence effects. This means that when an individual is less determined about his political beliefs in the exposure with disagreement, he becomes more cautious about the position that he should adopt in the public as a result of the uncertainty.

Human has a fundamental desire for being approved socially by others Dos Reis et al. (2010) and it is manifested through SNSs which may influence the way that an individual presents himself and the extent to which he exchanges his opinions, feelings and thoughts.

Kwon et al. (2015) generally suggest based on their study that social relational environment that exists in the social network sites creates not only normative pressures that are a symbol of conversational settings out of Internet but also it causes informational influences on the way that political views are expressed. At the same time, the exposure to inconsistent perspectives that are visible in the intensive online social networks may help the users to express their own opinions and in the long run it can ultimately promote a deliberative online discussion culture.

A mixed support is provided by Postelnicu et al. (2008) for the notion that using social networking can influence political attitudes. The respondents in their study reported high levels of political efficacy (4.6 on a 5-point scale) and campaign interest (3.96 on a 5-point scale). However, motivations in their study have shown to have little influence on efficacy, interest, and campaign involvement. Social utility such as facility for the candidate to meet the supporters, to find out what others say about him or to engage in discussion with them cannot be relied in SNSs because it will lead into less political activity, while relying on SNSs for information seeking purposes did not predict any of the political measures. The authors suggest that perhaps there is not always a direct connection between political attitude and media sources because there are always other

factors like individual's personality trait or affective start in using media may act as intervening variables (Schneider et al., 1977).

Zhang et al. (2013) studied the influence of using social network during the 2012 US presidential campaign. These researchers believe that the increasing popularity that social network sites (SNSs) received in election campaigns gives this opportunity to investigate the effect of different types of social network sites such as Facebook, Google Plus, Twitter, and YouTube on voters' attitudes and behavior during the 2012 U.S. presidential campaign. This study highlights the role of SNSs in political attitudes and behavior such as political participation and interest, selective exposure and avoidance, and strength of party affiliation.

Mou et al. (2013) also investigated the influence of SNS use and online political discussion in China. They assess the political activities among Chinese net users to understand the influence of social media in this country in the context of political attitudes and political participation. They found out a moderate but positive relationship between online forum and use of social networking sites on online political discussions. It seems that this paper highlights the role of SNSs in political change of the regimes like China that impose censorship on the Internet.

Thus the related hypotheses are planned as:

H6: Social network sites use by Iranian university students have a significant positive effect on their political attitude.

H7: Political attitude mediates the positive effect of social network use by Iranian university students on their political behavior.

2.11 Theoretical Framework

This section defines the theoretical concepts that frame the analysis of this study. This study needs to construct a framework that will be used to discuss the role of social networks in Iran. The framework of this study is built around a combination of two theories, making this research a mix-mode study.

2.11.1 Uses and Gratification Theory (UGT)

Uses and Gratification Theory (UGT) was proposed by Katz et al. (1974) and it deals with the effects the people have on the media. This theory is an approach which is audience centered and it is related to mass communication. It describes the way that the users of specific media use it to obtain their needs. It also explains the people attitude in selecting the media and their usage. This theory put the focus on the limited effect position which is the effects that audience have on the media and the way that they control the media. As the Figure 2.1 shows, the belief in UGT is that the media audience is not just passive consumers of media but they are active users who can control them. Often the media audience knows what they need from media and how to get the desired information from particular kinds of media, and they are also active in interpreting the media content. This theory is a valuable theory with which communication scholars can study the perspectives on choice of the media, its consumption and effects. This theoretical concept is a core of the framework of this research. It is helpful in revealing how the Iranian university students effectively use social networks for gaining and spreading information and news, particularly political knowledge and political news.
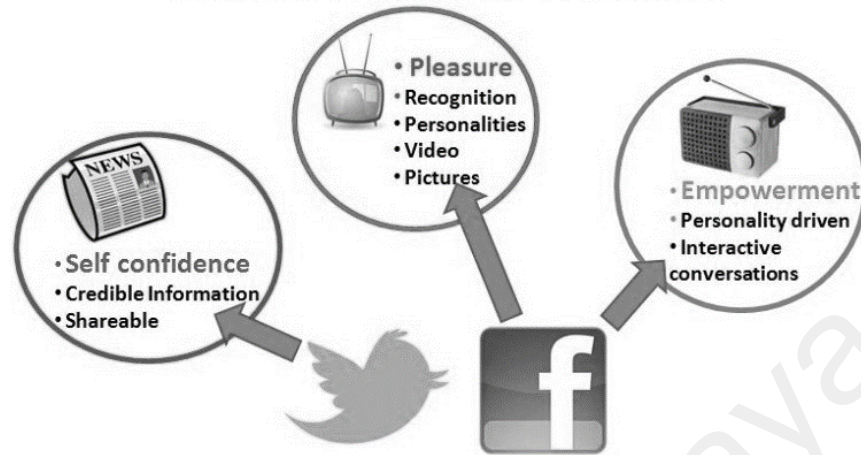
Figure 2.1: Use and gratification theory

2.11.2 Theory of Planned Behavior (TPB)

The second theory that is adopted in the current research is the Theory of Planned Behavior (TPB), which has a central importance to it. This theory links behavior and beliefs. Icek Ajzen (1991) proposed this concept which is to improve the predictive power of reasoned actions by adding the perceived behavioral control (See Figure 2.2). It is also one of the most predictive theories that have been used in various fields of study such as public relations, advertising and healthcare to investigate the relationship between belief, intentions, attitude and behavior. The theory states that intentions and behaviors are shaped by the attitude that the individual has toward behavior, perceived behavioral control and subjective norms.

Human behavior is believed to be guided by three types of considerations. The first type is called behavioral beliefs and they are the beliefs that an individual has about the consequences that his behavior may bring about. The second type is normative beliefs which are the beliefs about the normative expectations that others have and finally control

beliefs which are those of beliefs about the existence of some factors that may block or facilitate the behavior performance. Behavioral beliefs in their respective aggregation cause a favorable or unfavorable attitude toward the behavior; perceived subjective norm or social pressures are results of normative beliefs and control beliefs increase the perceived behavioral control. In combination, a behavioral intention is formed by the attitude toward the behavior, perception of behavioral control and the subjective norm.

Generally, there is a direct connection between attitude, subjective norm and the perceived control, so that if the positive attitude and subjective norm increase, there will be a greater behavioral control as well because the individual's intention to perform the intended behavior is stronger. Finally, it is expected that people can perform their intentions when there is an opportunity, given that they have a sufficient control over their behavior. Therefore, it is assumed that intention is the immediate antecedent of behavior.

However, because many behaviors are difficult to be executed or performed and that can limit the volitional control, considering the perceived behavioral control in addition to intention is also necessary and important. The degree of veridicality in the perceived behavioral control can serve as a substitute for the actual control and it can help in the prediction of the behavior in question.
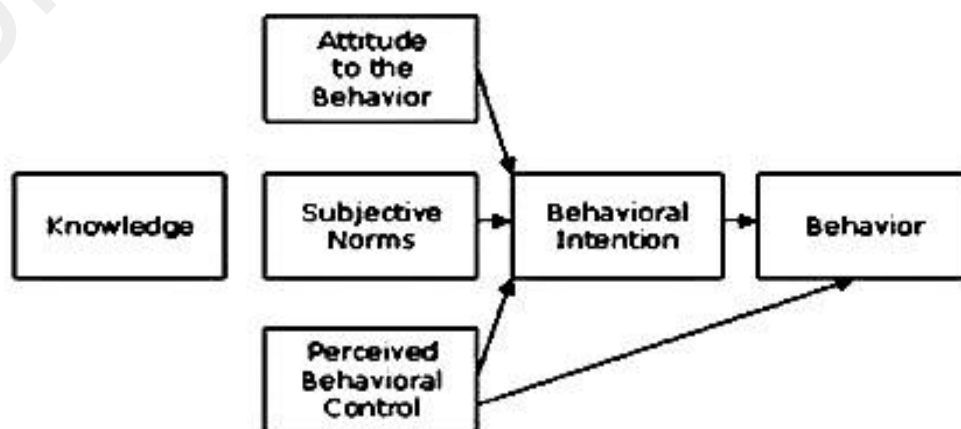
Figure 2.2: Theory of planned behavior

2.12 Conceptual Framework

According to the theoretical framework and since the core of the aforementioned theories are connecting beliefs and behavior as well as the concept that media audience is not just passive consumers of media; these theories are pertinent to this study as it is useful in bringing to light the impact of social networks on the political behavior, attitude and knowledge of Iranian university students. As social networks have the capability to shape one's ideas, influence one's attitude, and certainly to affect behavior, the conceptual framework (Figure 2.3) is considered to reveal how social networks particularly Facebook and Twitter increase the political knowledge of the Iranian university students and how improved knowledge effects on the political behavior. Besides, this conceptual framework examines how Facebook and Twitter effects on political attitudes of Iranian students and encourage them to participate in political activities. Furthermore, the direct effect of using social network on political behavior of the Iranian students is considered in this current study. On the whole, the two theories help this research to shed a light on how social networks sites increase political knowledge and attitude of the Iranian students, which as a consequence affect their political behavior. Although, knowledge plays no direct role in the theory of planned behavior, it was considered as a foundation to make attitudes (Ajzen, 1991). It is obvious that improved knowledge leads to a strong and approachable attitude and behavior (Fabrigar et al., 2006). Therefore, the political knowledge of students plans the basis of their political behavior.

For this current study, the survey items were conceptually grouped together based on the uses and gratification theory and theory of planned behavior so that the main

research variables were the political knowledge, political attitude, political behavior and social network sites. The design and research instrument are guided by these concepts.
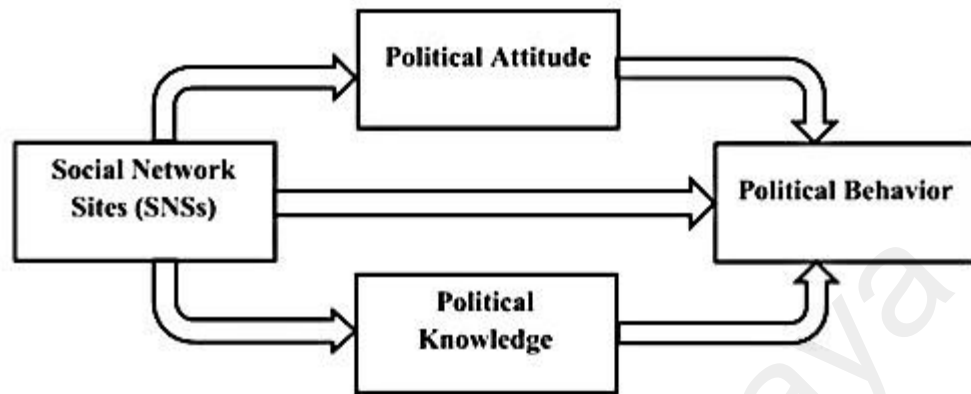
Figure 2.3: Conceptual framework of research

2.13 Conclusion

This chapter reviewed the studies on political behavior and SNSs, political behavior and political knowledge, political behavior and political attitude, political knowledge and SNSs, political attitude and SNSs. And it provided the history of social network sites and Internet filtering in Iran which consist the main goals of the current study. The current study is an endeavor to find the relationship between the different variables of SNSs usage and political knowledge, political attitude and political behavior among the Iranian students. This chapter reviewed the outcome of several studies on the role of social network sites by different scholars and the review paved the way for the current study to proceed smoothly toward its objectives. The following chapter shows the research design and the methodology that this research has adapted.

CHAPTER 3: METHODOLOGY

3.1   Introduction

This chapter covers the research methodology and procedures adopted in this research. The theoretical and conceptual frameworks of the research are discussed followed by the research hypotheses, sampling procedure, target population and sample, procedures and instruments of data collection, and data analysis. This research is conducted both qualitatively and quantitatively. The samples are selected from the Iranian university students and data were collected through a questionnaire, followed by an interview with the lecturers and experts by email. Figure 3.1 shows the procedure adopted in the current research and it shows the conceptual and theroetical frameworks which this study is conducted based on them.
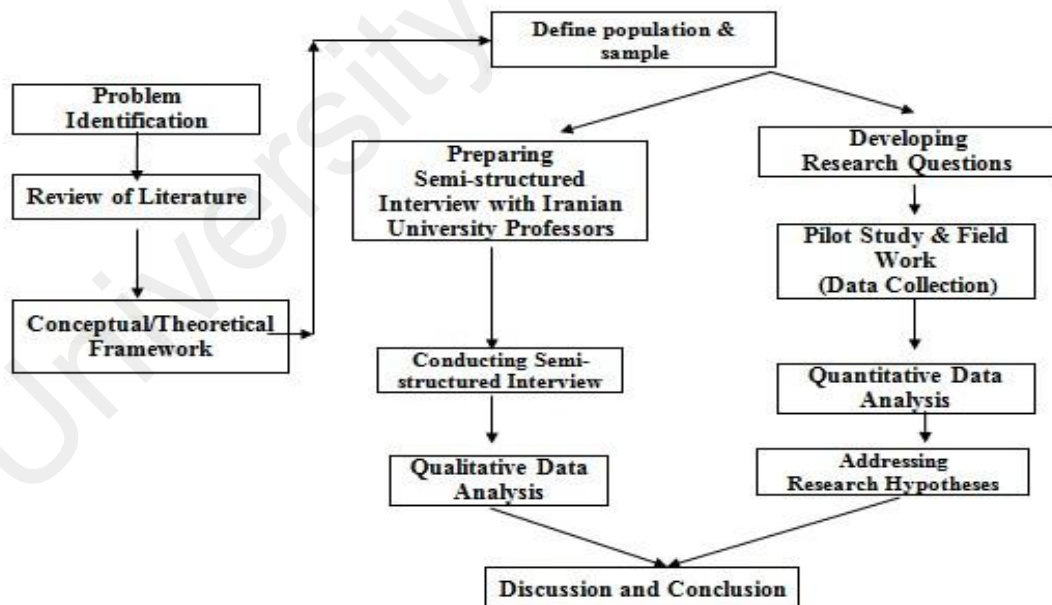
Figure 3.1: Flowchart of the study

As it can be seen in the flowchart of the study (Figure 3.1), the current study took a smooth path from the identification of the problem to literature review and conceptual

and theoretical framework in order to first define the study and decide on the population and samples that were required for a study such as the present one. After the development of the research questions and hypothesis, it was tested in a pilot study to fine tune the questions and instruments. After everything was set in an appropriate way, the main research work was started with data collection through the adopted questionnaire which were sent to the student participants and interview with the experts and lecturers. In the final stage, the statistical instruments were run to find the answers to the hypothesis and research questions and the results were presented.

3.2 Research Hypotheses

Finding out the habits of social network usage by the Iranian university students and its relationship with the extent of their political knowledge, attitude, and behavior is the objective of this research. Accordingly, the research hypotheses are written as follows:

H1: Social network sites use by Iranian university students have a significant positive effect on their political behavior.

H2: Political knowledge of Iranian university students has a significant positive effect on their political behavior.

H3: Political attitude of Iranian university students have a significant positive effect on their political behavior.

H4: Social network sites use by Iranian university students have a significant positive effect on their political knowledge.

H5: Political knowledge mediates the positive effect of social network use by Iranian university students on their political behavior.

H6: Social network sites use by Iranian university students have a significant positive effect on their political attitude

H7: Political attitude mediates the positive effect of social network use by Iranian university students on their political behavior.

3.3 Research Design

This study was based on the triangulation approach since it merges qualitative and quantitative research approaches. Triangulation is defined as studying the research problems from varied angles in terms of methods, theories and data sources (Sweetser et al., 2008a), so that results can be converged in order to increase the credibility. According to Creswell (2009), combination of the approaches (qualitative and quantitative) can assist in obtaining the aims of a study. Moreover, interviews can be used to gather reliable and valid data relevant to research hypothesis, question(s) and objectives (Jennings, 1996; Kenski et al., 2006). Therefore, an adopted survey questionnaire will be used for quantitative research approach whereas; qualitative study will be based on interviews and the combination of the two will shed light on the inferences made on the results of the study.

For quantitative research approach, this study employed an explanatory design. It is intended to explain Iranian university students' political attitude and political behavior through a mediation mechanism. The research uses a deductive approach (develops and then tests its hypotheses). The research sample is selected randomly from the Iranian university student to collect quantitative data. Generally, in definition a quantitative research has two parts: to discover relationships or inferences and to describe events (Tinghog et al., 2010). The present research first by using descriptive statistics describes and summarizes the basic features of the data. Next, by the mean of inferential statistics examines variation and any probable interrelationships between variables and tests the research hypotheses.

The current research, being designed as a hypothetic-deductive study, aimed to generalize its findings to the population under study. It also provides qualitative data about the two variables of the study through interviewing Iranian university professors and lecturers in the area of media and communication as a supplement of the quantitative findings.

Greene et al., (1989) provided a list of four purposes in using a mixed research method. The first one is named complementary purpose and it is for examining the different and overlapping facets that are available in a phenomena. The second one is initiation purpose which is used to discover the contradictions, paradoxes and obtaining a fresh perspective from the events. The third purpose is developmental which uses the methods in sequence so that the results from each method can inform each other. And the last one is the expansion purpose which is used to add scope and depth to a project.

This research uses a combination of quantitative and qualitative methods because it could lead to all these purposes while they could find answers to the research questions. With respect to RQ1, a quantitative study is necessary to identify the extent of use of social network sites by Iranian university students and their political knowledge, attitude, and behavior. With respect to three research questions (RQ2, RQ3, and RQ4) the quantitative phase of the study is going to find any relationship between the variables. Because of the systematic relationship that exists between various variables, it is important to study their correlation (Carpini et al., 2005) and to find out whether the variables under investigation are able to explain the specific outcome. It can also explain that whether the current research design is capable to answer the research questions and test the hypotheses.

At the first phase of the study, a quantitative approach is appropriate because there is a need to test out the hypotheses. At the second phase of the study, a qualitative

approach (interview) is adopted in order to find out the ideas about the variables in the study, which can support the findings.

3.4   Research Instrument

Three questionnaires were adapted for the purpose of the current study. The first questionnaire on the social network sites was an adapted version of the questionnaire retrieved from Qualtrics.com (retrieved from https://tltc.qualtrics.com/jfe6/form/SV71 ko5tlrvYsPScYon11.07.2015). The second questionnaire about the relationship between social network sites and political attitude and behavior was an adapted version of the survey by Rainie et al. (2012). Lastly, the questionnaire used to collect data on the students' level of political knowledge was adapted from a PhD Thesis by Sardar Nia (2003).

3.4.1   Questionnaire Survey

This study employed survey research design and a structured questionnaire as a means of data collection for quantitative level. The instrument was designed in order to measure all research variables. According to Sekaran (Papacharissi et al., 2008), a questionnaire is a set of controlled questions to which respondents give their answers, and it is considered as a data collection mechanism with high efficiency. Further, it is a popular tool for gathering data. The use of this instrument is based on this fact that questionnaire can provide a quantitative description from the collected data about its respondents (Postelnicu et al., 2008).

The questions presented in the questionnaire can be either close-ended or open-ended. The open-ended questionnaire has a set of questions that allow the respondents to explain the details of their responses to the questions. However, the open-ended format may be a little more difficult as compared to the close-ended format and most of the time;

the respondents will end up not answering the open-ended questions in full. On the other hand, the close-ended questionnaire contains questions with a set of possible answers for the respondents to choose. Therefore, in self-administered questionnaire, it is more practical to include close-ended questions. The reason behind it is that open-ended questionnaire mostly requires an additional interview with the respondents.

Considering the two primary forms of the available and appropriate questionnaires, it was found that a close-ended questionnaire can be more practical in the current study as it provides the respondents an opportunity to answer the questions in a shorter time and more quickly. This study used a self-administrated questionnaire for quantitative data collection to get accurate, reliable and generalized results. In order to make the collected data uniform and standard, the same questionnaire was provided to all respondents. These two facts can ensure of the maximum cooperation and lowest refusal rate. Moreover, structured questionnaires that require specified responses with multiple-choice option are more explicit than the open-ended questionnaire that requires descriptive answers. In order for the researcher to get a reliable and practical questionnaire, a pilot study was designed and conducted.

This study employed a 106-item questionnaire which is consisted of three main parts. The first part has eight questions about demographic information including participants' age, gender, education level, university, family members, and location and accessing to the Internet.

The second part was twelve close-ended questions about political knowledge regarding different political parties and official figures in Iran, also about the parliament, the political movements of the country. This part ended with questions about political issues of other countries. Part C with nine questions in the Likert scale asked about the political use of the social network sites and different applications the students prefer to

use. Likert-type scale is a psychometric scale that is frequently used in the questionnaires, and it is the most commonly used scale in survey research. By using Likert-type scale, a researcher can identify the level of agreement of the respondents to a subject. Part D with 10 questions in the same scale was going to ask about the political attitudes of the students, their trust and interest. Five questions of Part E questions asked about political participation to express personal opinions in the Likert scale, such as writing to politicians or voting in social network sites. Part F of the questionnaire including eleven questions asked about the political behavior of the students in different political activities within the last twelve months like contacting political organizations, signing a petition, or taking part demonstration and strike. Questions about SNS in part G included thirty nine questions about the use of the social network sites for different information that they can get such as news and entertainments. Since the study discusses about the 2009 presidential election events in Iran, it focused on the use of Facebook and Tweeter during the event to express ideas or exchange information. Therefore, bearing in mind the objectives of the study and having reviewed the related literature, the researcher of the current study decided to employ a questionnaire including some instruments provided by Table 3.1.

Table 3.1: Details of the research variables

No	Variable	No of Items	Scale	Role
1	Socio-demographic information	8	Nominal and Ordinal	Independent
2	Political knowledge	12	Ordinal	Mediator
3	Social network (political usage)	9	5-point Likert	Independent
4	Political attitude	10	5-point Likert	Mediator
5	Political participation	5	5-point Likert	Dependent
6	Political behaviour	11	Ordinal	Dependent
7	Social network usage	39	5-point Likert	Independent

3.4.2 Interview

The one-to-one interview is considered a popular approach in social networks research for data collection process. In this type of interview, the researcher asks questions and record answers from only one participant at a time as suggested by Creswell (2011). The one-to-one interview can be conducted in three ways: (1) face-to-face interviews, (2) telephone interviews and (3) the Internet or intranet-mediated (electronic) interviews (Kenski et al., 2006). In relation to the above, in this study, email interview was applied and the interview questions were sent to 30 lectureres in the Communication and Sociology departments in 3 universities under the current study. Those faculty members were selected who have expertise in communication, media and or sociology.

Interviews is an appropriate help to a researcher to collect reliable and valid data relevant to the intended objectives and research question(s) (Jennings, 1996; Kenski et al., 2006).

The interview can be of three main types which are namely "structured", "semi-structures" and "unstructured" (or in-depth) interviews. The difference between structures and unstructured interviews is that in the structured and formalized inteview, there are standard questions for the participants (who are often called respondents), while unstructred contain informal conversations (Kenski et al., 2006). According to Saunders et al. (1997), an unstructured interview can be executed with a list of questions and themes that researchers intended to cover and there may be some repeated questions and depending on the relevence, the researchers decide to omitt or vary some of the questions. Creswell (2011) noted that researcher can ask extra questions that he feels fit the subject. Researcher can also examine any associated issue that may arise in the course of the semi-structured interviews. Based on the suggestions, unstructured interviews were conducted in the current research and the interview questions are provided in the Appendix B.

3.5   Population and Unit of Analysis

The target population of the current study consisted of Iranian university students and at the time when this study was conducted, according to the report by Iranian Ministry of Science, Research and Technology (2013), there were 62,448 registered students at the three public universities in University of Tehran, Kharazmi University and Shahrood University of Technology.

Babbie (2010) stated that things or people that the researcher is going to observe, desribe and explain their charactristics are units of analysis. Sekaran (2003) and Babbie (2010) in their research designs indicated that in social science research, several units of analysis are generally identified as the most common unit.for example, individuals, dyads, groups, organizations, machines, social interactions, social artifacts and so on. Determination of the unit of analysis usually refers to the research objectives in any study.

One of the main purposes of the current study is to examine the use of social network sites by Iranian university students and their political knowledge, attitude, and behavior. Therefore, the unit of analysis is the student in universities of Iran.

3.6   Sample Size

Conducting a research with enough sample size is a very significant aspect in any study. This is more important as sample size is one of the most essential factors that can determine the capacity (power) of a study to detect difference or relations in a population or reject the null hypothesis (Sweetser et al., 2008b). According to Webster (1985) a sample is a limited part of any statistical population that its properties are studied so that it can give out the information about the whole. Determining the sample size is one of the important aspects of any research work because a sample size which is whether too long,

short, inadequate, or inappropriate can affect the quality, reliability, validity and accuracy of the survey research (Sweetser et al., 2008b).

The sample size in the current study is determined by the targets. Cohen (1969) believed that choosing a representative sample from a population is better than big but unbiased samples that will result in incorrect generalizations about the population in the study. Besides sample size is also determined by the chosen significance α-level and effect size. In the structural equation modeling, power analysis can be done through a number of methods. The focus in these methods is mainly on single parameters, a set of parameters or an overall model. Similar to the inferential method, choosing the sample size should also depend on those associations or differences that are of importance in the observation. The published SEM applications typically use large sample sizes (i.e. 200-400) to fit those types of models that are consisted of 10-15 variables. This study tended to have bigger sample because a larger sample size will strengthen confidence in the findings by allowing for multiple statistical approaches (Postelnicu et al., 2008). The population of the present research was 62448 students. The sample size in the current study was determined with Cochran's formula for large population:

$$n = \frac{t^2 \ p \ q}{d^2}$$

Where n=sample size, t=the value for selected α of 0.05=1.96, and p= proportion of the population =0.5 and d= degree of confidence=0.05. Consequently

$$n = \frac{(1.96)^2 \ (o.5)(o.5)}{(o.o5)^2} \simeq 384$$

Hence, the sample size in this study is approximately 384 students (male and female); after determining sample size, according to Cochran (1977), the final sample size was determined:

$$n_1 = \frac{no}{(1 + \frac{no - 1}{N})}$$

Where n_1= final sample size, n_o = primary sample size and N=population of students.

$$n_1 = \frac{384}{1 + \frac{383}{62448}} = 381.65$$

Eventually, the researcher in the study reached that idea that at least 382 students should participate in the study. Although, a minimum number of 382 students are selected for the current study, a total of 400 participants were finally chosen. All of the selected respondents are students from the respective chosen universities.

3.7 Sampling Method

A sample is a representative portion of a population which is selected for a specific research (Zhang et al., 2013). According to Field (2009), a sample ought to be selected under particular circumstances to be able to answer research question. Sampling is the selection process of a group of people, behaviors, events or other things and elements that are representative of the population under the study (Sweetser et al., 2008b). For this study, the sampling method would be used is multi stage cluster sampling method. Considering the importance that sampling has in the study, the researcher was careful in identifying the sample in order to be a true representative of the intended university.

Table 3.2 – The percentage of the participants based on their affiliation

University	N	Nx/N	Percentage
University of Tehran	N1=34000	N1/N	54.44 %
Kharazmi University	N2=16738	N2/N	26.80%
Shahrood University of Technology	N3=11710	N3/N	18.75%
Total	N=62448		100%

As the Table 3.2shows, the majority of the participants were from University of Tehran with 54.44% followed with Kharazmi University (26.80%) and Shahrood University of Technology (18.75%). The percentage of participation matches the size of the respective universities, as the universities in the capital and metropolitan are bigger in the number of enrolled students. University of Tehran and Kharazmi University are located in Tehran metropolitan.

In the first step, the states were selected based on the location of the universities (located in border town, city and downtown). This research will be done in three public universities in Tehran, i.e., University of Tehran, Kharazmi University and Shahrood University of Technology where located in city, border town and down town, respectively. In the next stage the Communication and Sociology departments were chosen based on multi stage cluster sampling. In the end, we employ a random sample method to select the students as respondents. As access to every student is impossible, a small segment of the population is selected because of two main reasons (1) availability of the study resources (finance, time, manpower); and (2) accessibility of universities. As a result, in the second step within the selected states, three universities were selected based on above mentioned.

3.8   Validity

Some steps were taken initially to ensure of the validity and reliability of the utilized instruments in the study. These stpes included conducting a pilot study. The aim of the pilot study was to deal with the doubts and questions that respondents had on the questions and the explanations which were required. In addition, some academicians and experts were assigned as consultants to assist in finalizing the content of the questionnaire. Validity was required in the currnet thesis to validate its constructs.

Validity refers to what the instrument purports to measure (Kim et al., 2012). Validity is considered as a difficult and important task. Leedy and Ormord (2005) showed that validity is mainly concerned with the effectiveness of the instrument. According to the scholars, there are three types of validity which are namely "content validity", "construct validity" and "criterion-related validity" (Papacharissi et al., 2008). In this study, the soundness and effectiveness of the research instrument was secured in a pre-test. Pre-test provides a real test before implementing the full-scale data collection. In the pre-test survey of this research study, the same format of the questionnaire consisting of three sections was used. In order to evaluate the content and face validity, the questionnaires was sent to 10 experts, including some persons that have knowledge of media study. Some of the selected experts were research academic supervisors and other research consultants.

3.8.1 Content validity

Content validity can make sure of the instrument validity. For example, the content validity of a questionnaire is set when the researcher concludes that the face of the designed questions reflect the explored topic. Content validity is provided when the items in the questionnaire can be trusted and are the representative of the measured content (Kalaboukis et al., 2011). Th experts in the field can make sure of the availability of the content validity. The current study used some established measures for its variables and its content validity was confirmed by the experts in the meida study. Experts in the field of media study were asked to edit the context and validate the content of instrument in the current study. It is recommended that the implication of social network usage and political behavior be clearly conceptualized and defined throughly in the questionnaire.

This study considered the content of the questionnaire in order to find out problem items and unrelated elements.

Moreover, the research methodologies of this study was sent to 10 selected experts of media study for comments. They were academic researchers, supervisors and other research consultants. After receiving the comments, the research in the current study modified and finalized the items.

3.9   Pilot Study and Reliability Analysis

In definition, reliability is the capability of an instrument to produce consistent results whenever a test is repeated (Kim et al., 2013). Reliability can be examined in two main dimensions which are namely "repeatability" and "internal consistency" (Dimitrova et al., 2011). Repeatability as the first dimension can be assessed through test-retest, and alternatives. Test-retest method means that the same instrument be used two times with some interval for the same respondents and at the same time, it is important to provide equal conditions which are more acceptable for formative constructs. In such case, the correlation coefficient should be calculated to confirm the extent that two tests are similar. If it is proved that there is a high correlation between the two form, it means that the instrument is reliable (Dimitrova et al., 2011).

However, constructing two equivalent forms of one instrument is difficult. Cronbach's (1951) coefficient alpha is the second approach and it is one of the common methods reliability assessment (Gajora, 2011b; Papacharissi et al., 2008; Sunstein, 2006) for reflective constructs. The degree of representation of the items in the scale is estimated with this technique and it is a measure to check the internal consistency of items. It is also considered as the absolutely first measure that any researcher should utilize to assess the reliability of his intended instrument. Nunnally and Bernstein (1994) believed that a result

higher than 0.70, and a low level of 0.60 can be accepted for the new scales. In the current research as three of five construct were formative there for the test-retest approach was used for measuring the reliability of items. Results of correlation between test and retest has revealed that all items had a value more than 0.8 which showed acceptable reliability. Since two type of construct in this study are formative and refletive, two methods were used to analyse the reliability including cronbach α (for reflective) and test–retest reliability (formative) among the respondents (Table 3.3).

Table 3.3 – Rsults of reliability test for both reflective and formative constructs

Refletive Construct	Cronbach A	Formative Construct	Correlation Coefficient
Attitude	α =0.781	Knowledge	0.877
Social network use	α = 0.803	Behaviour	0.832

3.10 Data Collection Procedure

A cross-sectional survey was selected for the data collection in the current research. Cross-sectional study or analysis is formed by a class of research methods that include the observation of the whole population or a representative subset of it in a defined time. Sample survey data collection is considered as one of the most reliable data collections methods in the social sciences and the current research has adopted this method for the data collection. The reason for such selection is that this method can derive the connection between results and varieties faster by studying the sample instead of the society (Mutz, 2006).

In this study, after getting the approval from supervisory committee, permissions for conducting the research were obtained from principals and directors of the respective Universities. The researcher visited three public universities about two weeks before the data collection to find out the number of undergraduate population enrolled there.

3.11 Construct Validity

The second type of the validity used in this study is construct validity which is concerned with the actual measurement of the instrument (Valenzuela et al., 2012). In other words, construct validity refers to the accuracy of the results obtained from using a certain instrument that fit the theories in it (Papacharissi et al., 2008). In relation to the placement of the theory over the instrument, Malhorta (1996) also found that it is necessary for the researchers to ask theoretical questions about the way that a given scale works and the kind of the deductions that can be made according to the theory. In short, this method of validity assessment refers to developing a set of adequate and correct operational measures that can be used to test the required concept (Kwon et al., 2015; Kwon et al., 2014). Although assessing the reliability and content validity can help to develop an internal consistency in the items, it cannot be deemed as sufficient (Papacharissi et al., 2011). Therefore, construct validity in this thesis was examined and assessed by analyzing both discriminant validity and convergent validity. In definition, convergent validity looks into the instrument to find out that whether the measures which are used in one construct are correlated in a high level, while discriminant validity can check if measures of the same construct are not highly correlated with other constructs (Papacharissi et al., 2008).

Convergent and disciminant validity can be assessed with a number of method such as correlation, factor analysis and some advanced procedures such as CFA which is available in Structural Equation Modeling (SEM).

For the purpose of the current research, the convergent and discriminant validity were assessed by executing CFA (Confirmatory Factor Analysis) . An item demonstrates convergent validity if the magnitude of the direct relationship of that item and the factor or construct is different from zero (Noelle-Neumann et al., 1993). This means that those

items which are selected finally (excluding the removed items) should be loaded highly with one factor (Noelle-Neumann et al., 1993) and they should have a factor loading of 0.50 or greater (Tempalski et al., 2009). Moreover AVE (Average Variance extracted) is used in this study as an indicator of the convergent validity (Valenzuela et al., 2012), but for the discriminant validity, two other methods are used.

The first method is to check the estimated correlation that may exist between the factors and it should not be larger than 0.85 (Dos Reis et al., 2010) . This method complies with the discriminant validity as defined by Sekaran (2003). This means that if there are two factors that they are highly correlated (larger than 0.85), redundant items that does not show discriminant validity should be removed (Dos Reis et al., 2010).

The second method examines the coefficient of the pattern structure in order to determine that factors can be distinguished empirically or not (Kwon et al., 2015). Standardized factor loading which is derived from the analysis by AMOS is the pattern coefficient. In addition to the steps taken to ensure of the validity in terms of convergent an discriminant validity, researcher in the current study tried to make sure of the content validity by ensuring that the designed model (through the reasonable results obtained from CFA) corresponds to the data in an adequate way (Postelnicu et al., 2008). Results for the assessment of the construct validity have been reported in the next Chapter.

3.12 Data Analysis Procedure

According to Coorley (1978), the main purpose of any statistical procedure is to help in creating a kind of plausibility in the theoretical model of the research and to estimate and evaluate the extent that dependent variables (political behavior) are influenced by various explanatory variables (social network use, political knowledge and political attitude).

3.12.1 Descriptive Statistics

Descriptive statistics can be defined as abstract description which is created based on the main summary statistics. This type of analysis is employed to determine the respondents' characteristics and it provides a clear meaning of data in the study through mean, standard deviation and frequency distribution which are used to identify the differences of the variables between groups. The main descriptive statistics in the current study for the students as the respondents included percentage, frequency, standard deviation, and mean to evaluate the current situation of political behavior, social network use, political knowledge and political attitude among students.

3.12.2 Structural Equation Modeling (SEM)

In current study, the collected data were analyzed using SPSS and Structural Equation Modeling (PLS-SEM) approach provided by Smart-PLS. Hair et al. (2009) stated that SEM is an advanced technique for data analysis and it also an extension for other previous multivariate techniques. It is also a general prototype and method for variables analysis and studying their relationship. According to Tabachnick and Fidell & Osterlind (2001), Structural Equation Modeling (SEM) is made of some statistical techniques that allow the researchers to study the relationships between one or more independent variables (continuous or discrete), and one or more dependent variables, (continuous or discrete). SEM is considered as a set of statistic models that can be used for explaining the relationship that multiple variables have with each other (Mou et al., 2013). The SEM process is consisted of two main steps of "validating the measurement model" and "fitting the structural model" (Katz et al., 1974).

Intriguingly, SEM is based on causal relationships (Mou et al., 2013), in which causal relationships is the description for the phenomenon that in what way the changes

exogenous constructs (variables) result in changes in endogenous constructs (other variables). Theoretical determination can support the connection among variables. Moreover, the measurement model and the structural model are the theoretical based models in SEM. In the investigatation of the issues in social and behavioral sciences, SEM is considered as one of the well-known models for selecting the research methodology (Ajzen, 1991). Therefore, this methodology contains two major steps of "measurement" and "casual relationship" in which the first one refers to the things that are going to be measured, their way of measurement, and the conditions for meeting validity and reliability. Causal relationship as the second step provides the explanation about the complex and unobserved variable (Fabrigar et al., 2006).

According to the review of the respective literature, there are many reasons for selecting SEM as an instrument of analysis in this research study. Firstly, SEM analysis procedures are applied when the researcher includes a variety of factors or variables. Secondly, it is felt favorable and a choice of analysis instrument when a questionnaire is constructed to facilitate interval scales. Moreover, if the element that is needed to be measured and evaluated is hypothetical and conceptual such as it is in the realm of social science research, SEM is highly recommended. This contrasts with multiple regressions that are designed to measure metric scales (Fabrigar et al., 2006).

Lastly, SEM is consisted of two models which are measurement and structural (Fabrigar et al., 2006). Another characteristics of SEM is the possibility for assessing the validity, reliability and undimensionality of any constructs (Anderson et al., 1988; Bollen, 1989; Hair et al., 1995; Kline, 1998; Kline et al., 2005). SEM provides two tests simultaneously for the model fit and the parameter estimate and in this way it provides the best model that can fit the data in an appropriate way.

3.12.3 Two-Stage Structural Equation Modeling

There are two approaches to perform SEM: one-stage and two-stage. The one-stage approach provides both structural and measurement models analysis at the same time thats why it is called single-stage approach. In two-stage approach, the measurement model is processed first and aftward this measurement model is fixed at the time of structural model estimatation and it is called two-stage approach. In the current study, the two–stage approach recommended by Anderson and Gerbing (1982) was adopted for the data analysis. It is recommended to use the two-stages approach in order to make sure of the reliability of the items in each construct and to avoid the possible interactions between structural and measurement models (Hair et al., 1995). As a matter of logical necessity, the causal relationships to be analysed in the structural model should be processed because there is need to a condition that must be satisfied (Anderson et al., 1982; Bagozzi, 1981). In this study, the first stage of the analysis (measurement model) was conducted by determination of the causal relationships between the items (observed variables) and the theoretical constructs (composite and latent variables). In this stage the composite unidimensionality and latent constructs are verified. Unidimentionality is defined as "an assumption underlying the calculation of reliability and is demonstrated when the indicators of a construct have acceptable fit on a single-factor (one dimensional) model" (Hair et al., 1995). Anderson and Gerbing (1988) stated that models with unidimensional measurement are more useful as their validity and convergent tests on the factor measurement is more percise. Thus, it is the first step that the researcher can make sure that selected items in a set can measure one dimension empirically. In accordance with Dunn et al. (1994), Anderson and Gerbing (1982) and Hair et al. (1995), unidimensionality assessment has been done before the test of reliability and validity of each construct.

When there is a lack of theory or new scales are developed, it is advised that in unidimensionality assessment, an exploratory factor analysis (EFA) be used as the analysis tool (Anderson et al., 1988; Byrne et al., 1989; Hair et al., 1995). Additionally, Anderson and Gerbing (1988) suggested that unidimensionality cannot be assessed directly with EFA, it assists the researcher in evaluating the factor structure for a given scale. Therefore, it it cannot be said that where there are hypotheses on the grounded theoretical models, confirmatory factor analysis (CFA) is a better method for the research (Bollen, 1989), and this is the case in the current research. Therefore, CFA was used in this thesis to find out whether loadings of items and the number of factors are consistent with the expectations, in accordance with the re-established theory. Those items that had weak performance on the hypothesized factors were deleted so that a unidimensional scale was developed (Dunn et al., 1994).

3.12.4 PLS-SEM

One of the flexible and useful tools for building the statistical model is the Partial Least Squares (PLS) to the SEM. The investigation and analysis of the complex and large models can be facilitated with the scope and flexibility of PLS, specifically when it is performed in exploratory way. Two sets of linear questions are used formally to define the PLS path models: the inner model and the outer model. The relationship between latent variables is speified by the inner model and the relationship between any given latent variable and its manifest or observed variables is specified with the outer model. The algorithm in the PLS is essentially consisted of a sequence of regressions that are in the weight vectors (Henseler et al., 2009). The coefficients of an individual path in the PLS structural model can be deemed as a standardized β coefficients (slopes) for those square regressions that are ordinary. By minimizing the residual variances that belong to

the dependent variables, parameter estimates can be obtained. To calculate the students' T statistic, a re-sampling bootstrapping technique can be used that may involve some random drawing in replaement of the original sample and it can assist in detemination of the confidence intervals that are in the patch coefficients and in drawing statistical inference (Tenenhaus et al., 2005).

The performance of PLS-SEM is satisfactory with the complex modelsand small sample sizes and moreover, it has no practical assumption for the data (e.g. data distribution) (Cassel et al., 1999). Additionally, PLS-SEM is capable to handle the formative and reflective models and construcs that contain only one single item easily without any identification problem. Therefore, PLS-SEM can be utilized in various research works and situations. PLS-SEM also assist the researchers with a high efficiency in its estimations for the parameter which is a charactersitic of the most powerful statistical approaches such as CB-SEM. Powerful statistical approach means that PLS-SEM has the feature to identify the significant relationship which is actually exists in the popluation. In SEM application, a key issue which should be considered is the formative and reflective measurement models. These two models can be easily hanled with PLS-SEM. As a result, when the hypothesized model in a research contain formative measures, PLS-SEM is considered as the primary approach.

3.13 Conclusion

Chapter three reviewed the methodology of the current research. It provided the detailed information about the pilot study that is done to verify the instruments and the statistical tools and approaches that were selected to fit the theory and practice in the study. This chapter presented two-stage structural equation modeling as the basic statistical approach that is utilized in this thesis as the instrument for the statically analysis of the data.

Structural Equation Modeling (SEM) is a second generation multivariate method that provides assessing the reliability and validity of the instrument as well as evaluation of relationship between independent variables and dependent variables compare to multiple regression analysis which is limited only for evaluation of relationship among variables. Next chapter will discuss the results of the study in details.

CHAPTER 4: FINDINGS AND DISCUSSION

4.1   Introduction

The previous chapter detailed the research methodology adopted to test the proposed theoretical model, and to answer the research questions of the study in a more accurate and reliable manner. The purpose of this chapter is to present the results of the research and provide the reader with comprehensive data analysis and to have the aforementioned hypotheses tested and reflect on its results. In this chapter, research findings are discussed that target to answer the problem statement as stated in the previous chapter. To investigate about the research objectives, a self-administered questionnaire was applied as a tool for data collection.

Therefore, the respective results of the study have been presented in two modes of descriptive and inferential manners. In the descriptive section, variables of the study were inspected and evaluated so that the statistical parameters such as mean and standard deviation are derived in order to show the level and distribution of respondents ranking for each given item. According to the purposes of this study, which was to determine the impact of social network usage on political behavior considering political knowledge and political attitude as a mediators among university students, inferential statistics was used to test and analyze the research hypotheses. Partial Least Squares (PLS) approach, consistent with standard structural equation modelling precepts, provides the researcher with greater ability to predict and understand the role and formation of individual constructs and their relationships among each other, which allow the researcher a more comprehensive outlook on the results of the research. PLS attempts to maximize the explained variance in the dependent variable. Furthermore, PLS-SEM (Structural

Equation Modeling) works efficiently with small sample sizes and complex models and makes practically no assumptions about the underlying data (Chin et al., 2010). In the following, the results of the model testing are presented. This includes the test of the measurement model and the structural model.

4.2 Demographic Characteristics of the Respondents

A number of variables were used in this study in order to describe the sample characteristics. Table 4.1 presents a summary of the respondent's distribution in the variety of demographic variables including gender, their fathers' level of education, their respective mothers' level of education, accommodation and accessibility to the Internet home. As can be seen, the analysis of the final sample profile showed a higher number of female (226) respondents than male (152), representing a ratio of 58.9% and 39.6%, respectively. In regard to the fathers' education, Table 4.1 indicates that the highest percentages were for the bachelor and below diploma holders (29.4% and 28.6%, respectively). The lowest percentages were for PhD holders (n=13, 3.4%). With respect to mothers 'education, Table 4.2 shows that the most of the respondents were below diploma and or holding a secondary school diploma (41.4% and 30.7%, respectively). The lowest percentages were for PhD (n=9, 1.6%).

In terms of the accommodation, Table 4.1 illustrates that most of the respondents stayed in the other cities and Tehran (24.7% and 23.2%, respectively). The least percentages were for respondents who stayed in the village (n=13, 3.4%). Finally, in the case of access to the Internet at home, Table 4.2 demonstrates that the percentage of students who had access to the Internet at home was impressively at 96.6%.

Table 4.1: Respondents' frequency distribution based on respondents characteristics

Variable	Frequency	Percent
Gender		
Male	152	39.6
Female	226	58.9
Missing	6	1.6
Father's Education		
Below Diploma	110	28.6
Diploma	99	25.8
Bachelor	113	29.4
Master	30	7.8
PhD	13	3.4
Others	12	3.1
Missing	7	1.8
Mother's Education		
Below Diploma	159	41.4
Diploma	118	30.7
Bachelor	81	21.1
Master	9	2.3
PhD	6	1.6
Others	8	2.1
Missing	3	.8
Accommodation		
Tehran	89	23.2
Province	56	14.6
Other cities	95	24.7
Village	13	3.4
Missing	131	34.1
Access to the Internet at home		
Yes	371	96.6
No	12	3.1
Missing	1	.3

4.3   Descriptive Results

4.3.1   Time Pattern of Using Facebook and Twitter

This section is aimed at identifying the time pattern of using Facebook and Twitter. According to the results 80.1% of respondents used Twitter less than 15 minutes a day while for Facebook only 41.4% of respondents used Facebook less than 15 minutes this results showed that for all other time patterns respondents used Facebook more than Twitter. 17.7% of students spent more than 3 hours on Facebook while only 4.9% used

Twitter more than 3 hours a day. The results of Mann Whitney test revealed that overall there was a significant difference between using Facebook and Twitter among respondents (Z=9.786, p<0.001) and Facebook was relatively much more popular among students.
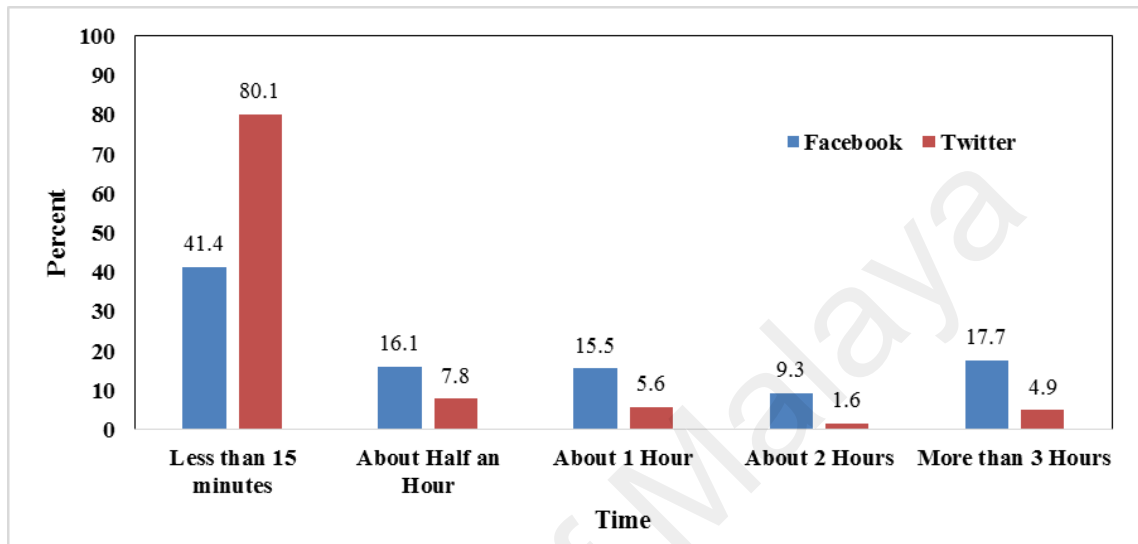
Figure 4.1: Time pattern of using Facebook and Twitter

4.3.2 Purpose for Using Social Network

Purpose for using social network was evaluated using seven items including getting information and news interaction with people, entertainments, self-expression, search scientific materials, search political materials and search economic materials. Respondents should have chosen 5 statements in terms of 5-Likert scale ranging from never to always. According to the results, as demonstrated in Table 4.2, among items related to purpose for using social network the highest mean belonging to, the "Do an interaction with people" with (M=3.68, SD=1.16) followed by "Entertainments" with (M=3.39, SD=1.30). Two items including "Self-expression" with (M=2.9681, SD=1.25) and "Search political materials" with (M=3.03, SD=1.32) had the lowest mean score.

However, this result shows that in any case the respondents use the social network sites for finding the political information and for expressing their ideas.

Table 4.2: Descriptive statistic for purpose of using social network

Item	Always	Often	Sometimes	Rarely	Never	Mean	SD
Get information and news	14.5	15.8	21.9	25.1	22.7	3.26	1.36
Do an interaction with people	5.1	11.8	21.8	32.5	28.8	3.68	1.16
Entertainments	10.1	16.4	23.5	24.6	25.4	3.39	1.30
Self-expression	12.7	24.3	30.7	17.7	14.6	2.96	1.25
Search scientific materials	12.9	16.9	20.1	22.7	27.4	3.35	1.38
Search political materials	16.7	18.8	26.3	21.2	16.9	3.03	1.32
search economic materials	12.8	20.3	29.7	22.2	15	3.06	1.24

4.3.3 Pattern of Using Social Network as a Source of Information

This section is aimed at identifying the time pattern of using social network as a source of information. According to the results 63.6% of respondents never used Twitter as a source of information while only 27.2 of respondent did not use the Facebook. 15.6% and 19.4% of respondents used Facebook always and often respectively while only 3.3% of the respondents used Twitter "always" as a source of information. These results indicated that Facebook was used more than Twitter as a source of information. The results of Mann Whitney test revealed that overall there was a significant difference between using Facebook and Twitter among respondents (Z=12.022, p<0.001) and Facebook was more popular among students.
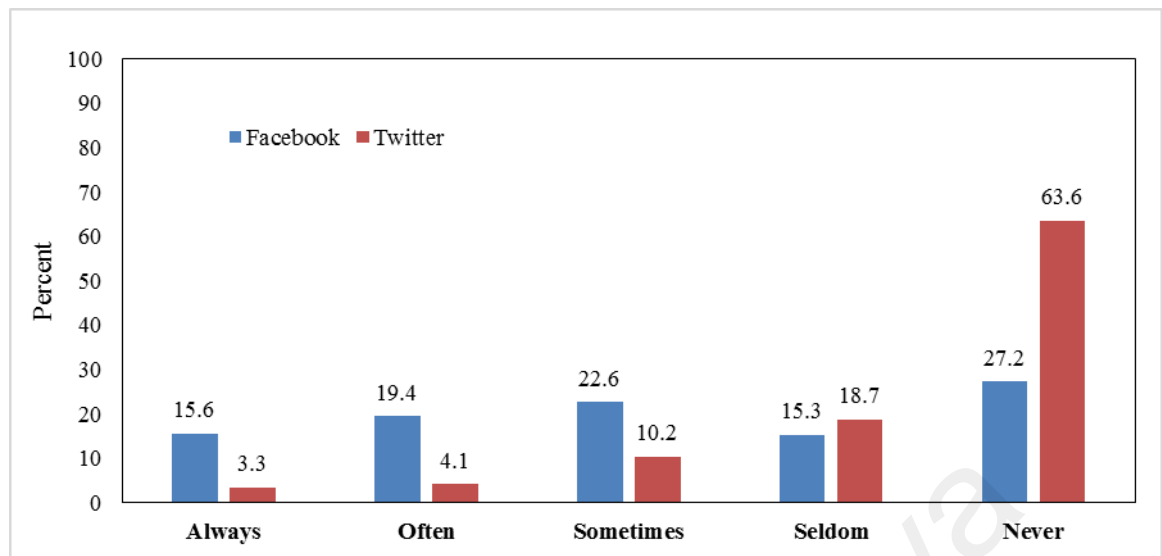
Figure 4.2: Distribution of pattern of using Facebook and Twitter as a source of political

information

4.3.4 Pattern of Using Social Network for Regional Source of Information

To evaluate and compare between Facebook and Twitter as a source of information regarding to the location respondents answered three questions based on local, national and international categories in terms of 5-Likert scale ranging from never to always. According to the results as seen in Table 4.3, for the local information respondents used Facebook (M= 2.54, SD=1.44) more than Twitter (M= 1.94, SD=1.39) which was significantly different (Z=6.661, p<0.001). In the national scale also Facebook (M= 2.71, SD=1.51)   was considered more than Twitter (M= 2.02, SD=1.40) as a source of information and it was statistically significant (Z=7.15, p<0.001) and for the international information respondents also used Facebook (M= 2.65, SD=1.50) more than Twitter (M= 2.02, SD=1.43) which was significantly different (Z=6.43, p<0.001). Therefore, the usage of Facebook by respondents seeking for national and international information was more than Twitter.

Table 4.3: Descriptive statistic for Pattern of using social network for regional source of information

Level	SNS	Always	Often	Sometimes	Rarely	Never	Mean	SD
Local	Facebook	35.4	16.5	20	14.5	13.6	2.54	1.44
	Twitter	60.7	12.1	10.9	4.7	11.5	1.94	1.39
National Political Events	Facebook	32.8	15.1	19.1	14.2	18.8	2.71	1.51
	Twitter	56.8	13.3	12.7	5.9	11.4	2.02	1.40
International	Facebook	34.2	15.9	18.3	13.9	17.7	2.65	1.50
	Twitter	57.6	13	11.5	5.6	12.4	2.02	1.43
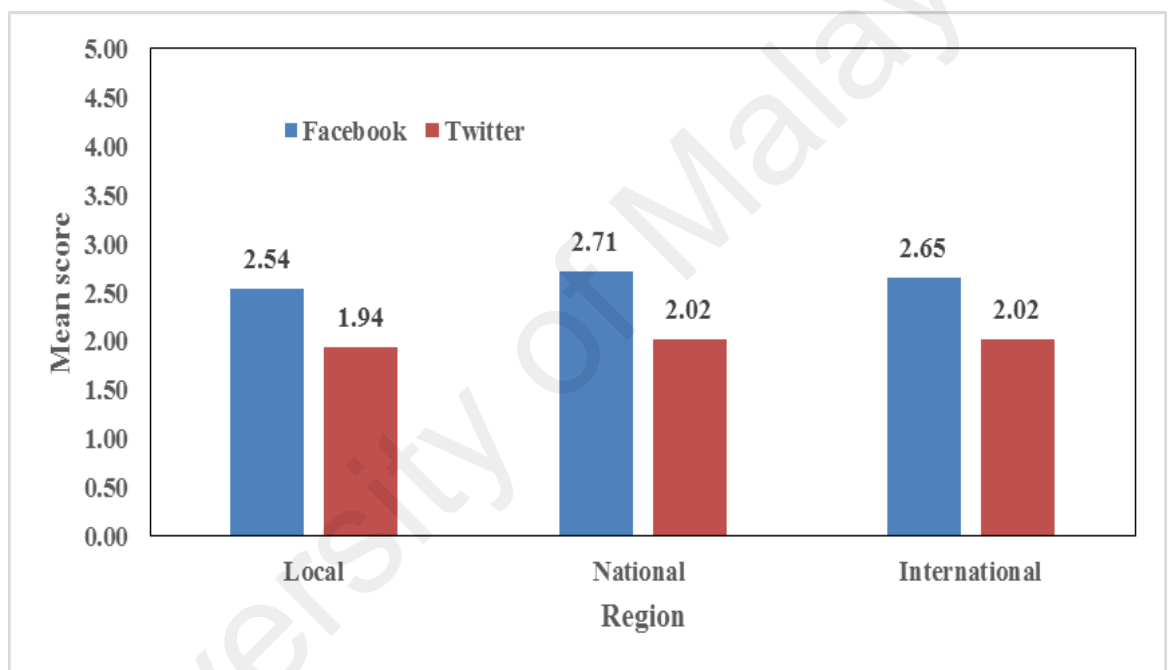
Figure 4.3: Pattern of using Facebook and Twitter as a source of political information

4.3.5 Pattern of Using Social Network for Types of Information

To study the differences between Facebook and Twitter regarding to the type of information, respondents answered three questions including News, Politician and Family& Friend in term of 5- Likert scale ranging from never to always. According to the results as seen in Table (4.4), the highest mean score was observed for Family & friend via Facebook (M= 2.97, SD=1.42) which was more than Twitter (M= 1.88, SD=1.32)

which was significantly different (Z=9.505, p<0.001). For News Facebook (M= 2.46, SD=1.36) was used more than Twitter (M= 1.83, SD=1.26) and it was statistically significant (Z=4.52, p<0.001) and for the Political issues using Facebook had higher mean score (M= 2.32, SD=1.32) than Twitter (M= 1.95, SD=1.32) which was significantly different (Z=7.078, p<0.001). These results also revealed that Twitter was used for political issues than News and family and friends.

Table 4.4: Descriptive statistic for Pattern of using social network for types of information

SNS	Types of information	Always	Often	Sometimes	Rarely	Never	Mean	SD
Facebook	News	33.9	20.9	21.8	11.8	11.6	2.463	1.365
	Politician	38.4	19.4	23.9	8.1	10.2	2.323	1.329
	Family& friend	21.9	17.2	21.9	19.9	19.1	2.972	1.420
Twitter	News	61	16	9.7	5.7	7.7	1.832	1.266
	Politician	57	14	13.5	7.2	8.3	1.957	1.320
	Family& friend	59.1	17.3	8.9	5.2	9.5	1.888	1.318
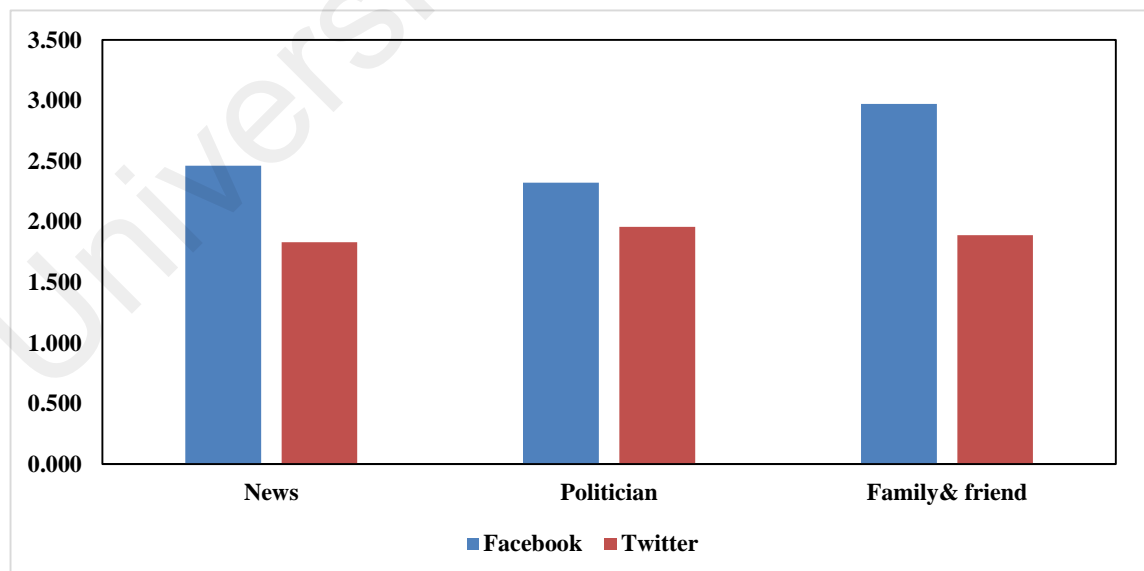
Figure 4.4: Pattern of using Facebook and Twitter for types of information

4.3.6 Pattern of Using Social Network Based on Political Groups & Parties

This section is aimed at identifying the time pattern of using social network regarding to different political groups and parties. Respondents answered three question based on current political groups in Iran including reformists, radical, opposition and other political groups in terms of 5- Likert scale ranging from never to always. According to the results as seen in Table 4.5 it can be concluded that Facebook was used more than Twitter for all these categories. For the 'Reformists' respondents used Facebook (M= 2.50, SD=1.44) more than Twitter (M= 1.98, SD=1.39), which was significantly different (Z=6.704, p<0.001). In the 'Radical' group of respondents, Facebook (M= 2.36, SD=1.40) was also considered to be used more than Twitter (M= 1.98, SD=13740) and it was statistically significant (Z=5.74, p<0.001) and for the 'Opposition' respondents also trusted on Facebook (M= 2.35, SD=1.42) more than Twitter (M= 1.98, SD=1.37), which was significantly different (Z=5.67, p<0.001).

Table 4.5: Descriptive statistic for Pattern based on political groups & parties

| SNS	Groups	Always	Often	Sometimes	Rarely	Never	Mean	SD
Facebook	Reformists	37.1	16.2	20.1	13.2	13.5	2.50	1.44
	Radical	39.9	18.3	19.7	10.2	11.9	2.36	1.40
	Opposition	42.7	13.8	22.4	8.4	12.7	2.35	1.42
	Political Groups	40.5	15	20.4	11.3	12.9	2.41	1.43
Twitter	Reformists	59.1	11.4	12.6	6.4	10.5	1.98	1.39
	Radical	58.4	10.9	15.5	5	10.3	1.98	1.37
	Opposition	59.7	8.4	15.2	7.8	9	1.98	1.37
	Political Groups	60.1	12	13	6.5	8.4	1.91	1.32
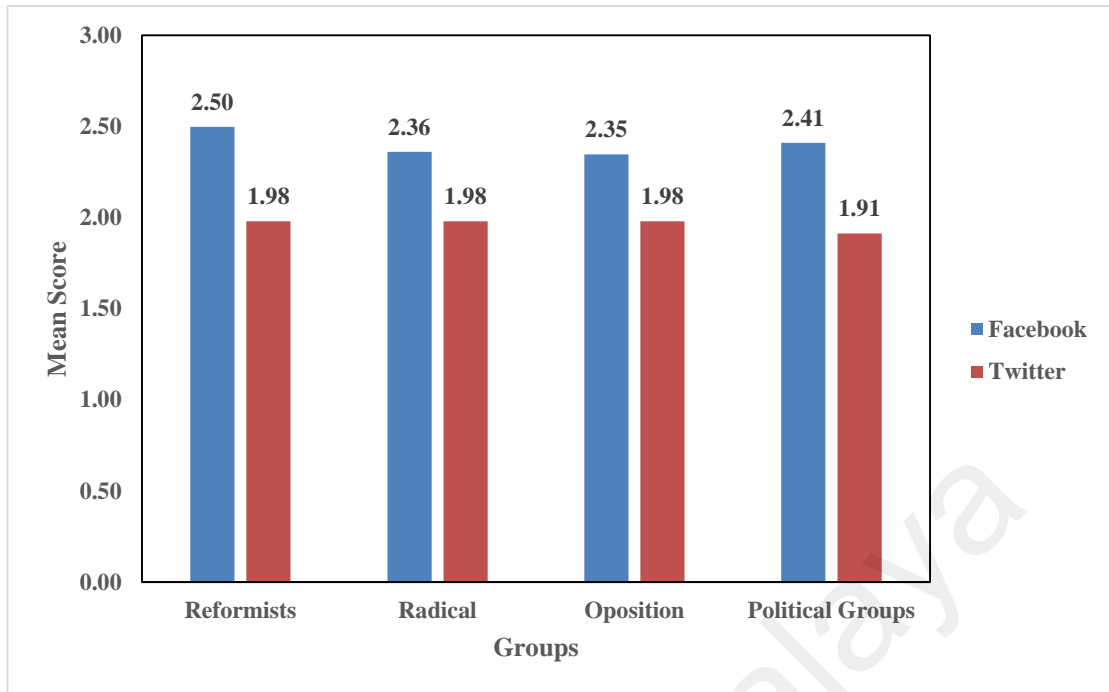
Figure 4.5: Distribution of pattern of using Facebook and Twitter based on political groups

4.3.7 Pattern of Using Social Network Based on Discussion Groups

To evaluate the differences between using Facebook and Twitter regarding to the discussion groups, respondents answered three questions including Friends, Experts and Academicians in term of 5-Likert scales ranging from never to always. According to the results as seen in Table 4.6, the highest mean score was observed for discussion with Friend via Facebook (M= 2.13, SD=1.30), which was more than Twitter (M= 1.73, SD=1.24) being significantly different (Z=6.05, p<0.001). For Discussion with experts also Facebook (M= 2.13, SD=1.33) was used more than Twitter (M= 1.78, SD=1.26) and it was statistically significant (Z=5.17, p<0.001) and for discussion with Academician, using Facebook had higher mean score (M= 2.04, SD=1.26) than Twitter (M= 1.72, SD=1.22), which was significantly different (Z=4.741, p<0.001). These results also revealed that overall Facebook was used more than Twitter for political discussion among respondents.

Table 4.6: Descriptive statistic for Pattern based on on discussion groups

SNS	Groups	Always	Often	Sometimes	Rarely	Never	Mean	SD
Facebook	Friend	44.4	22.6	17	7.2	8.8	2.13	1.30
	Expert	47.6	17.7	18.6	6.5	9.6	2.13	1.33
	Academician	47.6	23	14.7	7.2	7.5	2.04	1.26
Twitter	Friend	67.6	11	9.2	5.4	6.8	1.73	1.24
	Expert	64.7	12.7	9.7	5.7	7.3	1.78	1.26
	Academician	67.2	11.6	9.9	4.7	6.6	1.72	1.22
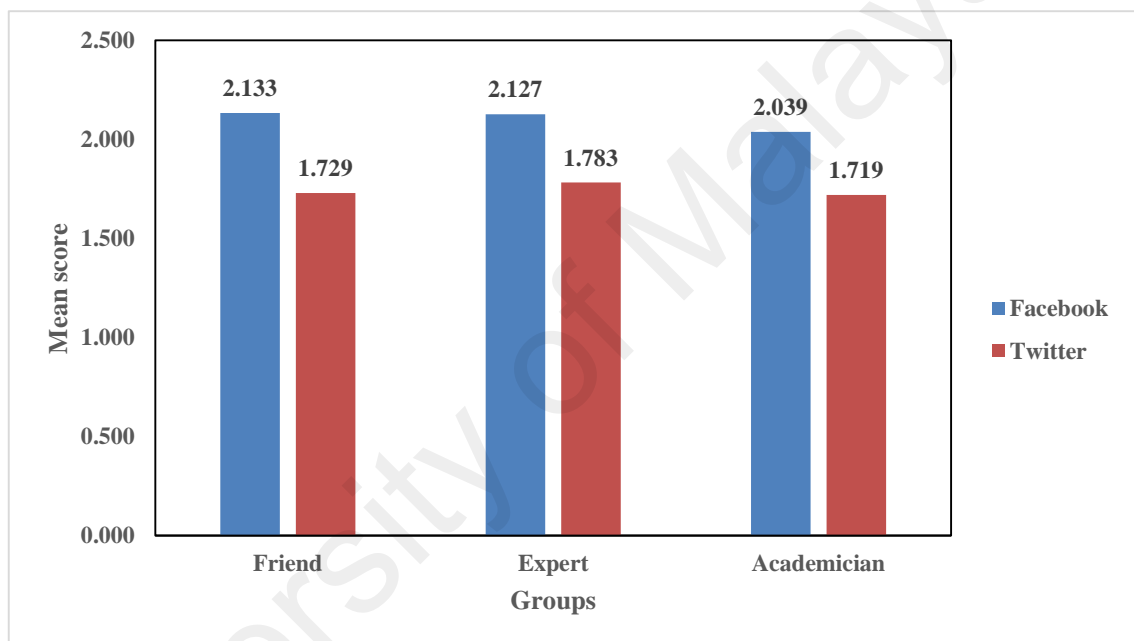
Figure 4.6: Distribution of pattern of using Facebook and Twitter based on discussion groups

4.3.8 Political Knowledge

One of major research variables in the current study was related to respondent's political knowledge regarding different political parties and political figures in Iran. Also, the researcher was interested to know about the respondents' view on the parliament as well as the political movements of the country. This part ended with questions about political issues of other countries. Respondents answered these questions in term multiple choice.

To study the level of political knowledge first the correct answer was recoded to 1 (correct) and 0 (wrong). The frequency of correct answers to these items has been illustrated in Table 4.7. According to these results the highest frequency for correct answer belonged to 'Which organization is under the authority of the Parliament and the Guardian Council's dispute resolution?' with 78.6% followed by 'What was the name of Egypt's first Islamist president after the revolution in 2011?' with 70.1%, which were related to national and international levels respectively. The lowest frequency of correct answer were observed for 'What is the name of Israel's intelligence and internal security service?' with 38.4% and 'Who was the late Minister of state government after the controversial impeachment in 2009?' with 36.6% which were related to international and national issues respectively. The total score for Knowledge among respondents was calculated and results showed the average of political knowledge of respondents had a mean of M= 6.023 (based on a range between 0 and 12) that indicated that students almost had a moderate level of political knowledge. Figure 4.6 shows that 34% of respondents had a low political knowledge and 44.8 of students had a moderate level of knowledge. These results indicated only above one fifths of respondent had a high level of political knowledge.

Table 4.7: Descriptive statistic for related items to political knowledge

Items	Frequency	Percent
Which organization is under the authority of Parliament and the Guardian Council's dispute resolution?	307	78.5
What was the name of Egypt's first Islamist president after the revolution in 2011?	274	70.1
In accordance with Article 73 of Iran's constitution, which organization is qualified to interpret the constitution?	223	57
Alliance for Progress was the initial coalition, of which of the candidates in the eleventh presidential election?	191	48.8
Which Prime Minister of Turkey and in which World Summit had a direct verbal clash with Israeli president regarding the support of the Palestinian people?	185	47.3

What was the spark of Arabic Spring in Muslim countries? And in which country it was?	184	47.1
Which international body has the duty of overseeing the activities related to the country's nuclear energy?	182	46.5
Which of the following individuals assigned to the staff of the Sustainability Movement?	181	46.3
Who was the first Iranian negotiator on the nuclear issue with G5 +1 representative with Ms. Ashton?	174	44.5
What was the slogan of Mohammad Bagher Galibaf in the election campaign?	161	41.2
What is the name of Israel's intelligence and internal security service?	150	38.4
Who was the late Minister of state government after the controversial impeachment in 2009?	143	36.6
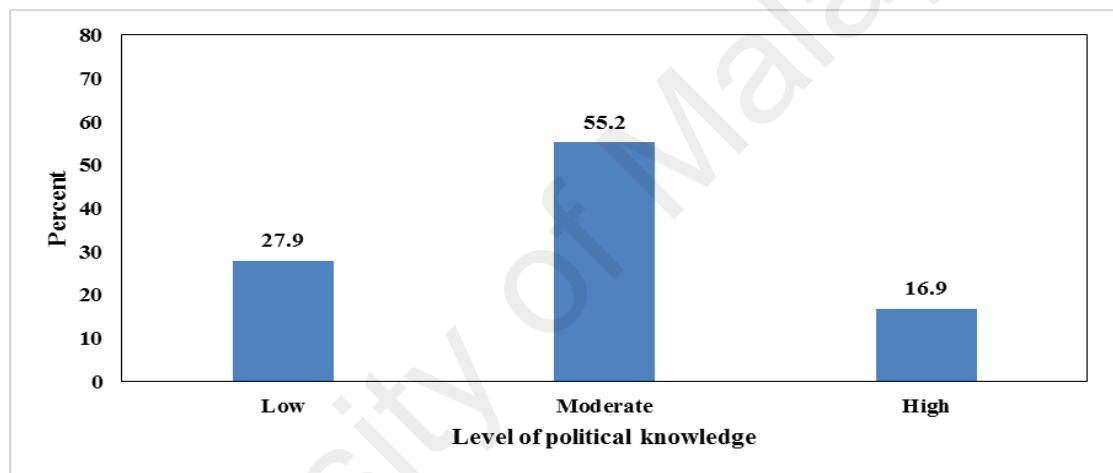
Figure 4.7: Level of political knowledge among respondents

4.3.9 Political Using of Social Network

This section is aimed at identifying the current status of the political usage of social network. It must be noted that the respondents' comments were studied using nine items in terms of 5 Likert scale ranging from strongly disagree to strongly agree. Table 4.8 shows that the highest overall mean related to "I can easily get political information through the Social Networks" with (M=3.028, S.D=1.34. The second most important item was "I use the Social Networks to get political information" with (M=2.98 S.D=1.31) however, the last and least item of political using of social network belonged to "I can

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comfortably discuss political issues with other Social Networks users" with (M=2.51, S.D=1.41). The overall mean of all indicators was 2.65, which showed that the level of political using of social network was lower than median of scale (3) that in fact revealed for this indicator among students were at the unprecedented low level (Table 4.8).

Table 4.8: Descriptive statistic for related items to political using of social network

Items	SD	D	N	NA	SA	Mean	SD
I use the Social Networks to get political information	16.6	20.2	28.6	17.4	17.1	2.98	1.32
I discuss political issues with friends through the Social Networks	26.3	25.6	23	12.8	12.3	2.59	1.33
I express my political opinion to the media through the Social Networking sites	32	20.5	19.2	15.1	13.3	2.57	1.41
I express my political opinion to politicians through the Social Networks	39.4	22.5	18.2	9.7	10.2	2.28	1.36
I can easily get political information through the Social Networks	15.3	23.8	21.7	21	18.2	3.03	1.34
I can comfortably discuss political issues with other Social Networks users	34.3	19.2	21.5	11.8	13.3	2.51	1.41
I express my political opinion through the Social Networks	31.7	18.4	23.5	13	13.3	2.58	1.39
I discuss political issues with researcher through the Social Networks	25.8	23.5	23.5	16.1	11	2.63	1.32
I discuss political issues with families through the Social Networks	28.6	18.9	22.5	17.1	12.8	2.67	1.38
Total						**2.65**	

Note: Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), =Strongly Agree (SA)

4.3.10 Political Attitude

This section is aimed at identifying the current status of the political attitude. It must be noted that the respondents' attitude toward political issues were studied using nine items in terms of 5 Likert scale ranging from strongly disagree to strongly agree. Table 4.9 shows that the highest overall mean related to 'Public officials don't care much about what people like me think' with (M=3.02, S.D=1.10) Followed by 'Most of the public officials are incorruptible' with (M=3.01 S.D=1.02) however, the last and least item of

political attitude belonged to 'Most of our leaders are devoted to service' with (M=2.72, S.D=1.07). The overall mean of all indicators was 2.91 which showed that the level of political attitude was almost near to the median of scale (3) which revealed for this indicator among students were at moderate level (Table 4.9).

Table 4.9: Descriptive statistic for related items to political attitude

Items	SD	D	N	A	SA	Mean	SD
In general, I am interested in politics	11.3	26.9	23.8	26.9	11.3	3	1.2
In general, I am concerned about political issues	11.8	28.1	23.3	28.9	7.9	2.93	1.17
Most of our leaders are devoted to service	12.8	31.7	30.7	20.2	4.6	2.72	1.07
Government is always doing the right thing	15.9	25.1	29.9	21.7	7.4	2.8	1.17
Politicians are wasting people's tax money	10.2	24.3	33.8	21.7	10	2.97	1.13
Public officials don't care much about what people like me think	10.5	19.7	34.8	27.4	7.7	3.02	1.1
Most of the public officials are incorruptible	6.4	26.3	32.5	29.2	5.6	3.01	1.02
Politicians never tell us their long-term plans	11	27.6	33	21.5	6.9	2.86	1.09
People like me don't have any say about what the government does	14	22.7	31.9	18.4	13	2.93	1.22
Total						2.91	

Note: Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), =Strongly Agree (SA)

4.3.11 Political Behavior

The main outcome variable in this research was related to respondent's political behaviour regarding to respondents political participation to express personal opinions such as writing to politicians or voting in the social network sites, which were measured in terms of 5-Likert scale ranging from strongly disagree to strongly agree scale and also another part including 11 questions asked about the behaviour of the students in different political activities within the last 12 months like contacting political organizations, signing a petition, or taking part demonstration and strike. Respondents answered to these questions in term of "Yes" and "No". Table (4.10) shows that the highest overall mean related to "I vote in every election" with (M=3.42, S.D=1.52) Followed by "I persuade my friends to vote for my supported candidate" with (M=2.85 S.D=1.34) however, the

last and least item of political behavior belonged to "I write and express my political opinion to the politicians" with (M=2.26, S.D=1.26).

Table 4.10: Descriptive statistic for related items to political behavior

Items	SD	D	N	A	SA	Mean	SD
I write and express my political opinion to the politicians.	37.3	24.8	19.4	11.5	6.9	2.26	1.26
I campaign for my supported candidate	42.5	17.9	16.6	12.8	10.2	2.3	1.39
I persuade my friends to vote for my supported candidate.	19.7	24	22.3	19.4	14.6	2.85	1.34
I attend campaign rallies.	31.2	17.6	27.6	13.3	10.2	2.54	1.33
I vote in every election.	17.9	13.3	13.8	18.4	36.6	3.42	1.52

Note: Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), =Strongly Agree (SA)

The frequencies of positive answer for different activity in second part were illustrated in Table 4.11. According to these results the highest frequency for correct answer belonged to "Contacted a civil servant on the national, regional or local level" with almost one third followed by "Signed a petition" with 26.3 %. The lowest frequencies of correct answer were observed for "Worked in a political party" with 7.4% as a moderate level of knowledge. This results indicated only just above one fifth of respondent had a high level of political knowledge.

Table 4.11: Descriptive statistic for related items to political behavior

Item	Frequency	Percent
Contacted a civil servant on the national, regional or local level	128	32.7
Signed a petition	103	26.3
Contacted an association or organization	97	24.8
Worked in another organization or association	93	23.8
Raised funds	75	19.2
Contacted a politician	74	18.9
Participated in illegal protest activities	69	17.6
Attended a political meeting or rally	66	16.9
Worked in a [political action group]	45	11.5
Contacted or appeared in the media	39	10
Worked in a political party	29	7.4

The total score for behavior among respondents was calculated and results showed the average of political behavior of respondents had a mean of M=15.46 (based on a range between 5 and 36) which indicated that students almost had a moderate level of political behavior. Figure 4-7 shows that more than a half of respondents had a low political behavior and 34.8% of students had students had a moderate level. This results indicated only 6.9 % of respondent had a high level of political behavior.
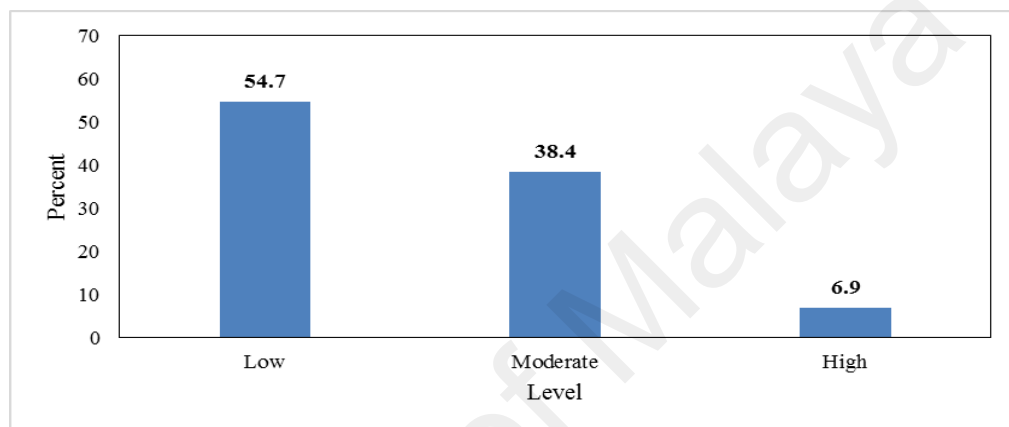
Figure 4.8: Level of political behaviour

4.4 Common-method Variance

Due to collecting data all the model variables from single respondents in a one-time survey, common method variance might influence some postulated relations in the PLS path model. To test for the potential existence of common method bias, we applied Harman's (1976) single-factor test. Common-method variance (CMV) is the spurious "variance that is attributable to the measurement method rather than to the constructs the measures are assumed to represent" or equivalently as "systematic error variance shared among variables measured with and introduced as a function of the same method and/or source". We applied Harman's (1976) single-factor test. The first factor accounts for only 23.745% of the overall variance, which indicates that common method variance likely

does not affect the results (Podsakoff & Organ, 1986). Table 4.12 shows the common-method variance and its neutral effects on the results.

Table 4.12: Common-method variance result

Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	10.685	23.745	23.745

4.5 Multi - Collinearity

SEMs can be a powerful method for dealing with multicollinearity in sets of predictor variables. Multicollinearity is nothing more than when two or more variables are not independent. It's a matter of degree and is very much diagnosable in many ways. When the variables are used as predictors, and their interdependence is strong enough, model results are poor and misleading. Multicollinearity, i.e. when there are very high correlations between two or more variables, can lead to problems when conducting multivariate analyses; standard errors of parameter estimates, and coefficient estimates can be affected. Nevertheless, it is worth noting that a correlation of more than 0.85 between variables represents high multicollinearity (Garson, 2008). The correlation coefficients among all variables was evaluated and all were less than 0.8 (Table 4.13) this results indicated there is no multicollinearity. Using SPSS 22 the VIF was also analyzed and calculated and the results revealed that all variables had VIF less than 4, which is quite impressive in the regard of the data analysis.

Table 4.13: Multicollinearity test based on correlation coefficients and VIF

IV	Tolerance	VIF	KN	SNU	AT
KN	0.508	1.969	1		
SNU	0.48	2.082	.694**	1	
AT	0.767	1.304	.414**	.466**	1

AT: Attitude, SNU: social network sites   KN: knowledge

4.6   Structural Equation Modeling (SEM)

SEM is a combination of factor analysis and multiple regressions that includes a series of statistical methods that allow complex relationships between one or more independent variables and one or more dependent variables. SEM can conceptually be used to answer any research question involving the indirect or direct observation of one or more independent variables or one or more dependent variables. However, the primary goal of SEM is to determine and validity a proposed causal process and/or model. Therefore, SEM is a confirmatory technique. The structural equation modelling process centers around two steps: validating the measurement model and fitting the structural model. The former is accomplished primarily through confirmatory factor analysis, while the latter is accomplished primarily through path analysis with latent variables.

4.6.1   Measurement model

The measurement model specifies the rules governing how the latent variables are measured in terms of the observed variables, and it describes the measurement properties of the observed variables. That is, measurement models are concerned with the relations between observed and latent variables. Such models specify hypotheses about the relations between a set of observed variables, such as ratings or questionnaire items, and the unobserved variables or constructs they were designed to measure. The measurement model is important as it provides a test for the reliability of the observed variables employed to measure the latent variables. A measurement model that offers a poor fit to the data suggests that at least some of the observed indicator variables are unreliable, and precludes the researcher from moving to the analysis of the structural model. In the current research two type of construct are involved Formative and reflective. Social network use and attitude are two reflective components and two other constructs including Knowledge, behavior (participation and act behavior) are formative.

Assessment of reflective measurement models includes composite reliability (CR) to evaluate internal consistency, individual indicator reliability, and average variance extracted (AVE) to evaluate convergent validity. In addition, the Fornell-Larcker criterion and cross loadings are used to assess discriminant validity. In the following sections, the above-mentioned criteria for measurement model   were assessed for both reflective and formative models.

4.6.2   Convergent Validity

Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct (Hair et al, 2014). A common method for measuring convergent validity on the construct level is the average variance extracted (AVE). This criterion is explained as the grand mean value of the squared loadings of the indicators associated with the construct. Intriguingly, the traditional criterion for internal consistency is Cronbach's alpha, which provides an estimate of the reliability based on the inter-correlations of the observed indicator variables but it is sensitive to the number of items in the scale and lead to underestimate the internal consistency reliability. Therefore, it is advised to apply a different measure of internal consistency reliability, which is referred to as composite reliability (CR). This type of reliability takes into account the different outer loadings of the indicator variables and is calculated using the following formula:

$$\rho_c = \frac{\left(\sum_i l_i\right)^2}{\left(\sum_i l_i\right)^2 + \sum_i \text{var}(e_i)},$$

Composite Reliability (CR) larger than 0.7 is acceptable, then, the CR following the improvement of the reliability of the questionnaire is possible via removing the statements increasing error.

Regarding to the findings of this study Composite Reliability (CR) for two reflective components were 0.922 and 0.923. In addition, in this study, AVE for attitude and social network usage were around above 0.5. Thus, the results prove that convergent validity (AVE) and Composite Reliability (CR) exist for the constructs of this study (Table 4.14).

Table 4.14: The result of convergent validity for reflective constructs

Variable	AVE	Composite Reliability	Cronbach's Alpha	Communality
AT	0.6002	0.923	0.9045	0.6002
SNU	0.5714	0.9221	0.9042	0.5714

AT: Attitude, KN: knowledge

High outer loadings on a construct shows that the related item of each construct have much association with the construct. This characteristic is also commonly called indicator reliability which can be evaluated by outer loadings and its significance level because a significant outer loading could still be fairly weak, a common rule of thumb is that the (standardized) outer loadings should be 0.708 or higher. Indicators with very low outer loadings (below 0.40) should, on the contrary, always be removed from the scale (Hair, Ringle, & Sarstedt, 2011). Table 4.15 shows the outer loadings of all items for all constructs with t values. According to these results all outer loadings were above 0.7 and the p values also confirmed their significant contribution to related constructs.

Table 4.15: T-Statistics of outer loadings and outer weighting based on boot strapping method

for reflective constructs

Construct	Item	Outer Loading	T value	p value	Outer Weight	T value	p value
At	PL.AT1	0.786	39.165	<0.001	0.139	13.901	<0.001
	PL.AT1	0.729	28.125	<0.001	0.166	14.946	<0.001
	PL.AT2	0.843	56.111	<0.001	0.164	18.313	<0.001
	PL.AT3	0.757	30.567	<0.001	0.175	14.977	<0.001
	PL.AT4	0.797	37.675	<0.001	0.181	16.319	<0.001
	PL.AT6	0.754	28.511	<0.001	0.151	11.940	<0.001
	PL.AT8	0.797	39.564	<0.001	0.163	16.961	<0.001
	PL.AT9	0.728	26.358	<0.001	0.151	13.515	<0.001
Bh	PL.BH.1	0.543	6.625	<0.001	0.098	0.980	0.328
	PL.BH.14	0.376	3.700	<0.001	0.132	1.216	0.225
	PL.BH.15	0.189	1.834	<0.001	-0.158	1.760	0.079
	PL.BH.17	0.844	17.583	<0.001	0.600	7.566	<0.001
	PL.BH.18	0.457	5.446	<0.001	0.106	1.372	0.171
	PL.BH.2	0.532	6.488	<0.001	0.180	1.782	0.076
	PL.BH.3	0.493	6.410	<0.001	0.113	1.227	0.220
	PL.BH.4	0.283	2.720	<0.001	-0.264	2.593	0.010
	PL.BH.5	0.589	7.242	<0.001	0.332	3.056	0.002
	PL.BH.6	0.479	5.273	<0.001	-0.061	0.526	0.599
	PL.BH.8	0.599	8.170	<0.001	0.216	2.401	0.017
Kn	PL.KN.1	0.148	2.278	<0.001	0.009	0.176	0.860
	PL.KN.10	0.413	6.993	<0.001	0.105	1.960	0.051
	PL.KN.11	0.513	8.366	<0.001	0.335	5.693	<0.001
	PL.KN.12	0.270	4.221	<0.001	0.112	2.080	0.038
	PL.KN.2	0.186	2.678	<0.001	0.115	2.164	0.031
	PL.KN.3	0.505	9.546	<0.001	0.334	5.773	<0.001
	PL.KN.4	0.285	4.492	<0.001	0.108	2.195	0.029
	PL.KN.5	0.414	7.083	<0.001	0.096	1.739	0.083
	PL.KN.6	0.482	9.014	<0.001	0.206	4.174	<0.001
	PL.KN.7	0.547	10.169	<0.001	0.400	6.800	<0.001
	PL.KN.8	0.516	9.488	<0.001	0.255	4.775	<0.001
	PL.KN.9	0.339	5.796	<0.001	0.127	2.338	<0.001
Partc	PL.PR.1	0.299	1.998	<0.001	-0.169	0.763	0.446
	PL.PR.2	0.576	5.134	<0.001	0.353	1.607	0.109
	PL.PR.3	0.795	10.741	<0.001	0.349	2.411	0.016
	PL.PR.4	0.725	8.734	<0.001	0.353	1.860	0.064
	PL.PR.5	0.618	6.088	<0.001	0.508	4.586	<0.001
SNU	SN.PL.1	0.656	17.718	<0.001	0.121	12.726	<0.001
	SN.PL.2	0.825	42.777	<0.001	0.157	21.438	<0.001
	SN.PL.3	0.858	67.051	<0.001	0.172	23.087	<0.001
	SN.PL.4	0.763	30.359	<0.001	0.154	18.022	<0.001
	SN.PL.5	0.583	13.827	<0.001	0.098	9.997	<0.001

SN.PL.6	0.859	57.453	<0.001	0.173	23.910	<0.001
SN.PL.7	0.755	27.875	<0.001	0.140	19.142	<0.001
SN.PL.8	0.690	18.879	<0.001	0.134	14.709	<0.001
SN.PL.9	0.774	31.107	<0.001	0.158	20.378	<0.001

AT: Attitude, SNU: social network sites uses, KN: Knowledge, BH: behavior, partc: participation
Assess Formative Measurement Models for Collinearity Issues

Unlike reflective indicators, which are essentially interchangeable, high correlations are not expected between items in formative measurement models. In fact, high correlations between two formative indicators also referred to as collinearity, can prove problematic from a methodological and interpretational standpoint. The results indicated that there were no collinearity among three formative constructs and all VIF values were below the acceptable value of 4 (Table 4.16).

Table 4.16: Variance inflation factor results for formative constructs

Item	Tolerance	VIF	Item	Tolerance	VIF	Item	Tolerance	VIF
PL.BH.1	0.56	1.786	PL.KN.1	0.853	1.172	PL.PR.1	0.46	2.172
PL.BH.2	0.546	1.833	PL.KN.2	0.796	1.256	PL.PR.2	0.314	3.188
PL.BH.3	0.579	1.728	PL.KN.3	0.698	1.432	PL.PR.3	0.605	1.652
PL.BH.4	0.628	1.592	PL.KN.4	0.909	1.1	PL.PR.4	0.365	2.739
PL.BH.5	0.539	1.857	PL.KN.5	0.759	1.318	PL.PR.5	0.85	1.177
PL.BH.6	0.55	1.818	PL.KN.6	0.817	1.224			
PL.BH.8	0.741	1.35	PL.KN.7	0.765	1.308			
PL.BH.14	0.746	1.34	PL.KN.8	0.821	1.218			
PL.BH.15	0.773	1.294	PL.KN.9	0.78	1.282			
PL.BH.17	0.698	1.433	PL.KN.10	0.821	1.218			
PL.BH.18	0.838	1.194	PL.KN.11	0.776	1.288			
			PL.KN.12	0.785	1.274			

AT: Attitude, SNU: social network sites uses, KN: Knowledge, BH: behavior, PARTC: participation

4.6.3 Discriminant validity

Discriminant validity is, best defined as when a construct is truly different from other constructs by the known empirical standards. Thus, establishing discriminant validity suggests that a construct is unique and captures phenomena not characterized by other

constructs in the model (Hair et al, 2014). Discriminant validity can be tested by examining the AVE for each construct against squared correlations (shared variance) between the construct and all other constructs in the model. A construct will have adequate discriminant validity if the AVE exceeds the squared correlation among the constructs (Fornell et al., 1981; Hair et al., 2006). Based on Table 4.17, AVE for each construct is more than each of the squared correlation between constructs. As a result, discriminant validity is quite adequate for all of the constructs.

Table 4.17: Correlation of latent variables and discriminant validity

	AT	BH	KNO	PAR	SNU
AT	**0.775**				
BH	0.416	FR			
KN	0.494	0.369	FR		
PARTC	0.203	0.443	0.389	FR	
SNU	0.476	0.276	0.736	0.442	**0.757**

Note: The square root of AVE values is shown on the diagonal and printed in bold (reflective constructs only); no diagonal elements are the latent variable correlations. AT: Attitude, SNU: social network sites uses, KN: Knowledge, BH: behavior, partc: participation

4.7   Path Analysis

Path analysis is a statistical method based on linear regression. According the research framework that includes both mediator and moderators Therefore it is possible to examine the direct effects of one variable on another and the indirect effect of variables by mediation of variables set in path analysis model and also moderating effect as interaction term between independent variables and moderators. The mediation analysis divides the correlation of the variables in three effects in the framework of structural equations system as follow:

  i. Direct effects of independent variable on dependent variable

 ii. Indirect effects of a variable on dependent variable via its effect on another variable or other variables

iii. Total effects which is the sum of direct and indirect effects

iv. Moderating effects of three moderators

The structural equation model is the second main step of SEM analysis after fitting the measurement model. The structural model can be applied by identifying the relationships among the variables. The structural model provides details on the relations between the variables. It illustrates the specific information of the relationship between the independent or exogenous variables and dependent or endogenous variables (Hair, Black, Babin, Anderson, &Tatham, 2006; Ho, 2006). Evaluation of the structural model focuses firstly on the overall model fit, followed by the size, direction and significance of the hypothesized parameter estimates (Hair, et al., 2006). The final part involved the confirmation of proposed relationship of the study based on the research hypothesizes shown in table 4.18.

Table 4.18: List of hypotheses and relative paths

Hypothesis	Path
H1: Social network sites use by Iranian university students have a significant positive effect on their political behavior	SNU ------- > BH
H2: Social network sites use by Iranian university students have a significant positive effect on their political attitude	SNU ------- > AT
H3: Social network sites use by Iranian university students have a significant positive effect on their political knowledge	SNU ------- > KN
H4: Political attitude of Iranian university students have a significant positive effect on their political behavior	AT ------- > BH
H5: Political knowledge of Iranian university students have a significant positive effect on their political behavior	KN ------- > BH
H6: Political knowledge of Iranian university students have a significant positive effect on their political attitude	KN ------- > AT
H7: Political knowledge mediate the positive effect of social network use by Iranian university students on their political behavior	SNU --- > KN ---- > BH
H8: Political attitude mediate the positive effect of social network use by Iranian university students on their political behavior	SNU --- > AT ---- > BH

AT: Attitude, SNU: social network sites uses, KN: Knowledge, BH: behavior, PARTC: participation

Structural equation modeling (Partial Least Squares; PLS) was applied to test the research hypothesis and evaluate the research hypothesizes. According to the research model, in the first model the effect of main independent variables, Social network use on political behavior was evaluated. Figure 4-8 shows the path model without considering the attitude and knowledge as mediators.
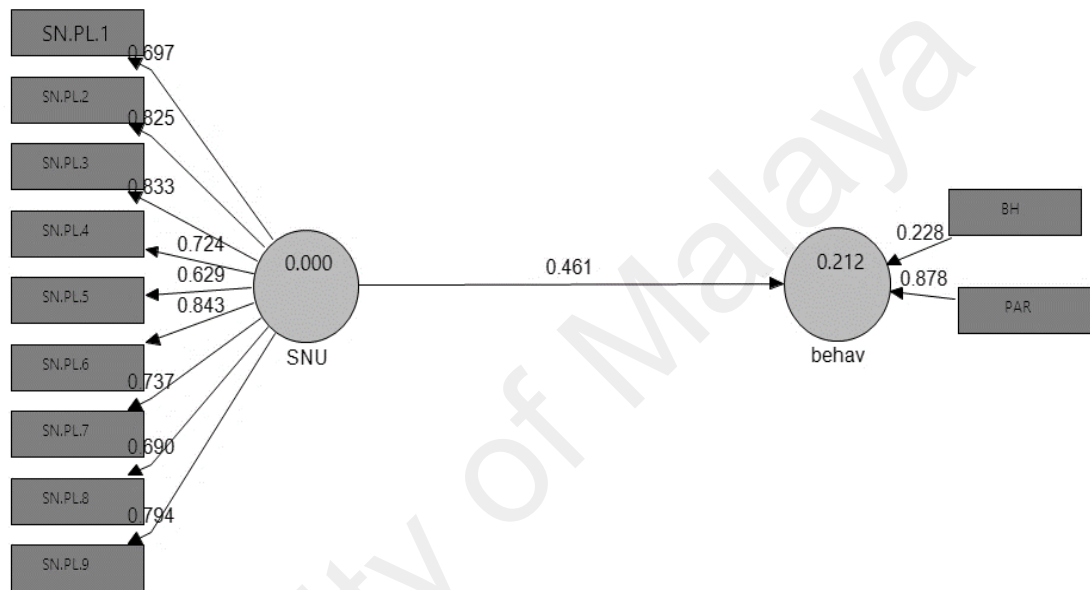
Figure 4.9: Initial path model without mediators

The result of boot strapping method (Table 4.19) shows a p-value for the relation between social network use and political behavior. The structural model relationships was significant considering a p-value = 0.05. In the model the IV had a significant positive coefficient which means, higher level of social network use will tend to achieve a better political behavior. The effect of social network use on political behavior was positive and significant (B=0. 0.461, p<0.05).

Table 4.19: Test of the total effects using bootstrapping (without mediators)

Path	Original sample	Bootstrapping mean	SE	T	P value
SNU -> behavior	0.461	0.467	0.040	11.452**	<0.001

Significant at 0.01 levels, AT: Attitude, SNU: social network sites uses, KN: Knowledge, BH: behavior, PARTC: participation

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It is important to note that contrary to confirmative SEM models (e.g., LISREL); explorative PLS models still do not have such global indicators that would assess the overall goodness of the model, to evaluate the goodness of fit for models. The criterion of global fitness (GoF) was calculated. The GoF is a geometric average of all communalities and R2 in the model. The GoF is an index that can be used to validate models with PLS.

$$\text{GoF} = \sqrt{Communality * R^2} = 0.362$$

Table 4.20: The criterion of global fitness

Variables	R Square	Communality	GOF
Social network use	--	0.571	
Political behavior	0.212	0.669	0.362

A value higher than the GoF> 0.5 shows that the set of structural equations is well defined and offers a good representation of the dataset and is valid. GoF of current model for customer retention was 0.362 which is ready to consider 36.2 % of the reachable fitness (Table 4.20).

4.7.1 Multi - Collinearity

SEMs can be a powerful method for dealing with multicollinearity in sets of predictor variables. Multicollinearity is nothing more than when two or more variables are not independent. It's a matter of degree and is diagnosable. When the variables are used as predictors, and their interdependence is strong enough, model results are poor and misleading. Multicollinearity, i.e. when there are very high correlations between two or more variables, can lead to problems when conducting multivariate analyses; standard errors of parameter estimates, and coefficient estimates can be affected. Using SPSS 22

the VIF also was calculated for all three step of modeling and results showed that all variables had VIF less than 4.

Table 4.21: Collinearity assessment

Variable	Model 1	Model 2
	VIF	VIF
Social network use	1	2.082
Political attitude		1.304
Political knowledge		1.969

4.7.2 Mediator Effect of Political Knowledge and Attitude

In the second step the constructs of "political knowledge and political attitude" were added to the first model as independent and exogenous variables including their mediating effect on dependent variable (Figure 4.10).
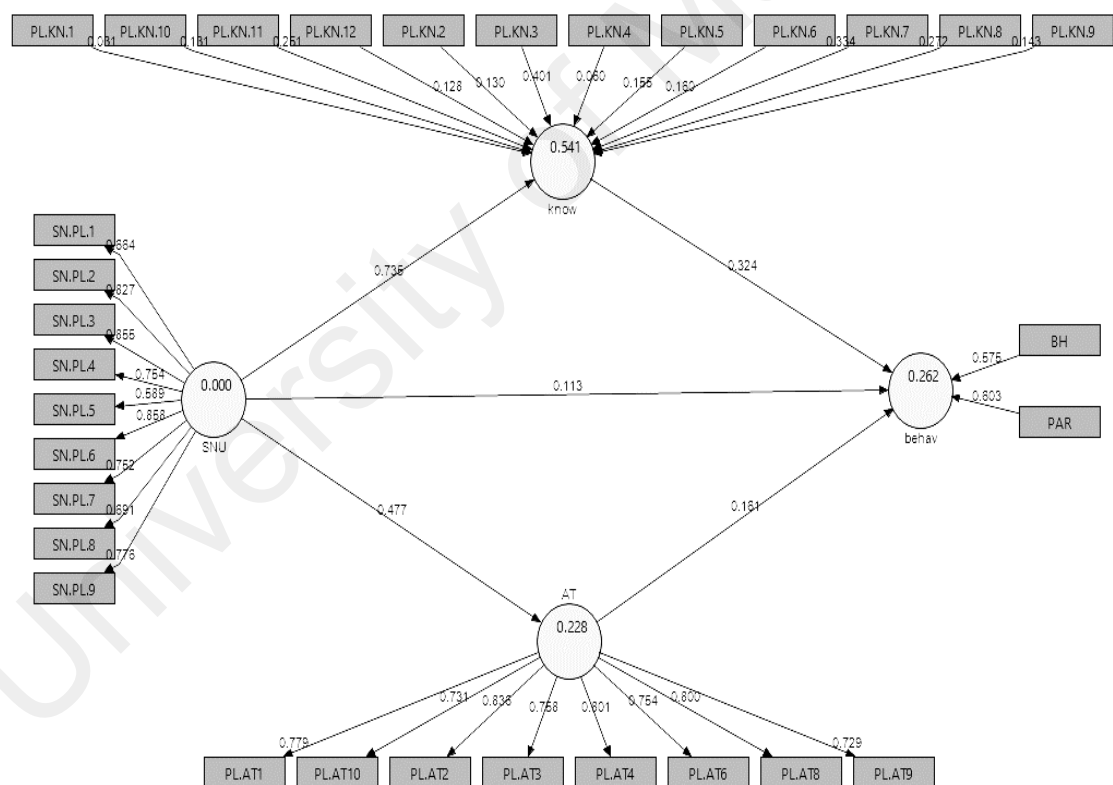
Figure 4.10: Path model including political knowledge and political attitude as a mediator

Result of boot strapping method (Table 4.23) after introducing mediator variables (political knowledge and political attitude) in the model showed the effect of social

network use on political knowledge (B=0. 0.738, p<0.05) and political attitude (B=0. 0.266, p<0.05) were positive and significant. Political knowledge also influenced positively on political behavior (B=0.292, p<0.05). The effect Political attitude on political behavior also was positive and significant (B=0. 0.158, p<0.05). According to these results the direct effect of social network use on political behavior was not significant after mediation (B=0.135, p=0.122). Political knowledge also influenced positively on political attitude (B=0.286, p<0.05).

The R^2 for political behavior in this model was 0.252 and GoF of current model was 0.337 which is ready to consider 25.2 % of the reachable fitness for political behavior. The R^2 for political knowledge was 0.544 which indicated 54.4% of Political knowledge can be explained by social network use and the R^2 for political attitude was 0.265 which indicated 26.5% of Political attitude can be explained by social network use.

Table 4.22: The criterion of global fitness

Variable	R Square	Communality	GOF
Behavior	0.252	0.721	33.7
Knowledge	0.544	0.169	0.498
Attitude	0.265	0.600	0.346
Social Network Use		0.572	

Table 4.23: Test of the total effects using bootstrapping (with mediators)

Path	β	SE	t value	p value
Path a				
SNU ------- > AT	0.266	0.071	3.768	<0.001
SNU ------- > KN	0.738	0.027	27.502	<0.001
Path b				
KN ------- > BH	0.292	0.077	3.797	<0.001
AT ------- > BH	0.158	0.063	2.517	0.012
Path c'				
SNU ------- > BH	0.135	0.087	1.549	0.122
KN ------- > AT	0.286	0.069	4.123	<0.001

Significant at 0.01 level AT: Attitude, SNU: social network sites uses, KN: Knowledge, BH: behavior, PARTC: participation

4.7.3 Test of mediation

Mediation addresses how an independent variable causes a change in a dependent variable. When a third variable is intermediate in the relationship between two variables, it is called a mediator. In simple terms, a mediator is a variable that accounts for all or part of the relationship between a predictor and an outcome. The figure below displays the path diagram for a single mediator model.
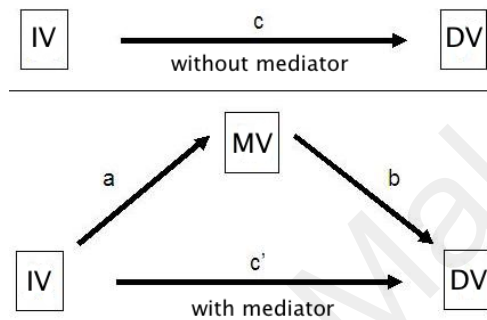
Three regression equations are used to investigate mediation that is illustrated below in more depth and details.

$$\text{Model 1: } Y = i1 + cX + e1 \qquad (1)$$

$$\text{Model 2: } Y = i2 + c'X + bM + e2 \qquad (2)$$

$$\text{Model 3: } M = i3 + aX + e3 \qquad (3)$$

Where **c** is a total effect which represents the total relationship between independent variable and dependent variable without consideration of other variables, **c'** is a direct effect which accounts for the relationship between X and Y adjusting for the effect of M, a mediator, **b** is the parameter relating the mediator to the dependent variable adjusted for the effect of the independent variable and **a** represents the relationship between X and M.

The product of a and b, ab, is the mediated effect which is also known as the indirect effect. The indirect effect is also equal to the difference between c and c'. As a result, the total effect is the sum of a direct effect and an indirect effect.

Assessing of mediation in path models can be done by examining the relationship of the direct link between two latent variables (path c) and the indirect link via the potential mediator variable (path a) from the predictor to the mediator and path b from the mediator to the endogenous variable.

Mediation can be assumed if H0: a × b = 0 can be rejected. The asymptotical normally distributed Z (Sobel 1982) can be used as a test statistic.

$$z = \frac{ab}{\sqrt{(b^2 SE_a^2) + (a^2 SE_b^2)}}$$

where a is the regression weight **(a)** for the relationship between the independent variable and the mediator and **(b)** is the regression weight between the mediator and the dependent variable, SE_a , and SE_b are the standard error regression weight **(a)** and **(b)** respectively. Table 4.24 represents the mediation test for two possible paths for retention. According to these results the mediation effect of political knowledge and political attitude between both social network use and political behavior] were statistically significant. The highest mediation effect belonged to communication.

Table 4.24: Test of the mediation effects using bootstrapping

Path	ab	SE	z value	p value	VAF
SNU -> AT -> BH	0.042	0.020	2.093	0.037	23.6%
SNU -> KN -> BH	0.215	0.057	3.764	<0.001	61.4%

AT: Attitude, SNU: social network sites uses, KN: Knowledge, BH: behavior, PARTC: participation

4.7.4 Predictive Relevance Q2

The blindfolding procedure with the cross-validated redundancy method (Stone-Geisser's Q^2 value) was applied for evaluating of predictive relevance of the proposed model. As

there were 230 observations, an omission distance of D = 7 was considered for this analysis. Due to two endogenous constructs this method was evaluated separately (2 sets), for model productivity. The results of the construct cross-validated redundancy estimation are used to prove predictive relevance for a particular endogenous construct, the Q^2 value should be more than zero. The results showed that the Q^2 values of political behaviour (0.166), political knowledge (0.094) and political attitude (0.156) are well above the threshold requirement which implies that the model has predictive relevance for these constructs.

Table 4.25: Results of R^2 and Q^2 values in the model

Endogenous Latent Variable	R^2	Q^2
Behavior	0.252	0.166
Knowledge	0.544	0.094
Attitude	0.265	0.156

4.7.5 Effect Size f 2 and q2

The change in the R^2 value when a specified exogenous construct is omitted from the model can be used to evaluate whether the omitted construct has a basic impact on the endogenous constructs. This measure is referred to as the *f2* effect size. The effect size can be calculated as

$$f^2 = \frac{R^2_{included} - R^2_{excluded}}{1 - R^2_{included}}$$

Where R^2 *included* and R^2 *excluded* are the R^2 values of the endogenous latent variable when a selected exogenous latent variable is included in or excluded from the model. Guidelines for assessing /2 are that values of 0.02, 0.15, and 0.35, respectively, represent small, medium, and large effects (Cohen, 1988) of the exogenous latent variable. According to

Table 4.26 the effect size of Knowledge use on the political behavior is medium effects, while the attitude and social network use had small affect.

The guideline values for assessment of q^2 effect sizes are 0.02 (small), 0.15 (medium), and 0.35 (large) effects of predictive relevance of an exogenous variable. Based on the results social network use had a medium effects of predictive relevance of political behavior while knowledge and attitude had a small effects.

Table 4.26: Results of effect size f2 and q2 for all exogenous variables

Predictor	*f2*	*q2*
Knowledge	0.15	0.11
Attitude	0.05	0.01
Social network use	0.019	0.016

f² ': the relative impact of an exogenous construct on an endogenous construct, q2: the relative predictive relevance of an exogenous construct (predictor) on an endogenous construct

Table 4.27: List of hypotheses and relative paths

Hypothesis	Path	T /Z	P value	Result
H1: Social network sites use by Iranian university students have a significant positive effect on their political behavior	SNU ------- > BH	11.452**	<0.001	Supported
H2: Social network sites use by Iranian university students have a significant positive effect on their political attitude	SNU ------- > AT	3.768	<0.001	Supported
H3: Social network sites use by Iranian university students have a significant positive effect on their political knowledge	SNU ------- > KN	27.502	<0.001	Supported
H4: Political attitude of Iranian university students have a significant positive effect on their political behavior	AT ------- > BH	2.517	<0.001	Supported
H5: Political knowledge of Iranian university students have a significant positive effect on their political behavior	KN ------- > BH	3.797	<0.001	Supported
H6: Political knowledge of Iranian university students have a significant positive effect on their political attitude	KN ------- > AT	4.123	0.012	Supported
H7: Political knowledge mediate the positive effect of social network use by Iranian university students on their political behavior	SNU -- > KN -- > BH	2.093	0.037	Supported

| H8: Political attitude mediate the positive effect of social network use by Iranian university students on their political behavior | SNU -- > AT -- > BH | 3.764 | <0.001 | Supported |

AT: Attitude, SNU: social network sites uses, KN: Knowledge, BH: behavior, PARTC: participation

4.8 Hypothesis Testing

The P value or calculated probability is the estimated probability of rejecting or accepting the hypothesis. If the P value is less than the chosen significance level then the null hypothesis will be rejected. The choice of significance level for testing the hypothesis is arbitrary. Conventionally the 5%, 1% and 0.1% (P < 0.05, 0.01 and 0.001) levels have been used. In the current study the significance level was considered 0.05.

4.9 Findings of Research Interviews

This part aims to reconstruct the answers of the questions of an interview with the Iranian university lecturers and scholars regarding the social network usage and political knowledge as well as attitude and behavior of Iranian university students. To reach this goal, a 10-item question interview was designed to be used as an instrument for collecting data. Then, 12 lecturers and media experts enjoying social networks and teaching at three different universities across the country were selected randomly, namely from Tehran, Karaj, and the city of Shahrood. These lecturers were then asked to respond to the aforementioned questionnaire. Due to some problems like difficult face-to-face accessibility to the interviewees, the interview was conducted by the use of an E.mail. They were asked to send their answers in July. After receiving the responses, the researcher began to compare and analyze the data respectively. The Table 4.28 provided the detailed information on the interviewees.

Table 4.28: Detailed information on the Interviewees

Code	Status*	Affiliation	Department	Media Expert
1	Lecturer	Shahrood University of Technology	Sociology	
2	Lecturer	Kharazmi University	Sociology	
3	Lecturer	University of Tehran	Communication	*
4	Lecturer	Kharazmi University	Communication	
5	Lecturer	University of Tehran	Sociology	*
6	Lecturer	Shahrood University of Technology	Communication	*
7	Lecturer	Shahrood University of Technology	Communication	
8	Lecturer	University of Tehran	Sociology	
9	Lecturer	Kharazmi University	Sociology	*
10	Lecturer	Shahrood University of Technology	Communication	
11	Lecturer	Kharazmi University	Communication	
12	Lecturer	University of Tehran	Sociology	*

* Scientific ranking, age and gender were removed to eliminate the preferences and to protect the anonymity of the interviewees.

4.9.1 Research Qualitative Interview

An interview was used to have data collection using this method that largely contained oral questions asked by interviewers as well as oral answers replied by research respondents. In this research study; however, because of difficult access to the individuals, the questions of the interview were prepared in a written form (See appendix two). Next the questionnaire or in this case the interview was transferred to the research subjects to reply to the same questions and then send them back. The participants of the study consisted of twelve lecturers and scholars from the Iranian universities of Tehran, Karaj, and Shahrood who have been using social media and instructing in various fields such as translation and communications. In order to rewrite their comments easily, they were coded from 1 to 12 without any preferences in terms of the position or order. The academics, from both genders and with different ages, were selected.

It should be noted that they were given the time period of the month of July to reply to the 10 given questions concerning the social network they used as well as political knowledge not to mention the attitude and behavior of Iranian university students. Then, the answers to the questions, the respondents' opinions, were received by E-mail (See Appendix 2). After reading and analyzing the script of the interview, it was reproduced and discussed as follows that will be demonstrated below in more depth and details:

The first question of the interview asked the participants whether they use social networking services (SNSs). In their response to the questions, all the respondents reply in the affirmative manner and reaffirmed that they use SNSs whether in their leisure time or even at work and at the university. In response to the second question that asked the interviewees, which social networks they used, the answers of all respondents were roughly the same, as well and they concluded that they use all the major social networking sites. They reported that they usually use one or more than one of the social networking services such as Facebook, LinkedIn, Twitter, You Tube, Instagram, Viber, Telegram, Line, as well as WhatsApp.

The third interview question asked them if they thought that political knowledge of Iranian students has declined in recent years. The majority of the participants believed that not only has it has not been decreasing, but it has been increasing as a result of easy access to modern information sources. They also said that Iranian university students continue to be aware of all national and international events. One respondent (code 5) stated that they hold meetings to discuss political issues happening in their country as well as abroad. They had even written a number of letters to high-ranking officials to voice their concerns about existing problems in the country regarding filtering of social networking sites as well as communicative apps like Telegram and WhatsApp. Another interviewee (code 2) argues that they can have an important role in monitoring and

assessing the government performance and the activities and effectiveness of the parties in their society. However, two of them (codes 4 and 12) believe that in spite of increasing political knowledge among Iranian students, they have been playing a relatively passive role in political issues recently.

In response to the fourth question concerning what kind of political knowledge of social networking sites leads to filtering them from the government, the lecturers' answers seemed to be almost different with a variety of responses. A few interviewees (codes 1, 2, 7, 9, 11) assert that publishing and disseminating political news against the current establishment of the country may make the government remove or block some social media. They say that such networks could actually help grow political knowledge and awareness among people, which means a menace to the security of the nation for the government. That is why it attempts to prevent its citizens from accessibility to free information through social networking sites.

Another scholar (code 1) expressed his concern over the fact that it is better to ask the related officials about reasons why they limit or block social networks. There was actually another participant (code 8) who found the question sensitive and in many ways inappropriate. One lecturer (code 10) maintained that the main motive why the government prevents its people from reaching access to social networking sites is possible threats from these sites. Interviewee (code 10), for instance, mentioned the significant role of the social media played in holding anti-government protests and creating unrest in the capital city of Tehran and some other big cities of the country after the 2009 controversial presidential election. In addition to the necessity of the national security, the entity and ideology of the government, the fear of losing the legitimacy, the actions of counter-revolutionary groups and green movements and finally the easy control of the

society are other reasons that the rest of the research subjects have brought up in their own interview for filtering social networks.

The fifth question of the interview asked the lecturers how they described the current status of social network sites in Iran. The participants' answers revealed that over half of them are entirely dissatisfied with the situation of the social networks. One of them (code 9) says that using the existing social networks is impossible. He explains that despite the total ban on these channels, there is always a great deal of software helping them to thwart the imposed filtering. Another candidate (code 6) claims that the widespread and systematic filtering is strictly enforced. In addition, owing to emerging new applications like Viber and What's Up, the number of some social networks' users, especially Facebook', has dropped suddenly.

Another interviewee (code 12) criticizes the top officials' double standard. He points out that the grass roots' access is blocked while authorities such as the supreme leader, the president, and the foreign minister constantly use these social services! The present situation of the social networking services in Iran is described as terrible by another lecturer (code 6). He says that almost 50 percent of the top 500 visited websites in the world, including Facebook, Google + and Twitter are blocked. It causes people to spend lot of time and money breaking the filtering with low speed of the Internet. It also shows that localizing the social networks in Iran appears not to be as successful as some other countries' localization like China. Another instructor (code 3) disapproves of the condition, too. He thinks social networks in Iran like other countries are mostly monitored by the government. He states that it places limitations on such websites because of dangers from them. Two other respondents (codes 1, 7) describe the current status of the social networks as time wasting and very bad. Another two participants make no reply to this question, either.

By contrast, there are two lecturers (codes 2, 4) among the interviewees who approve the situation of the social media. One of them says that the current social media in Iran are active and Iranians mainly use them for their personal and business needs. Another interviewee (code 11) adds that these social networking sites are so widespread that this wide usage, in short term, will cause users to believe that everything on the cyberspace is true. In long term; however, it adversely affects trustfulness, general belief, and morality.

The next question requests the lecturers and scholars whether the access and use of social networking services can improve political knowledge and change the political attitude and behavior of the Iranian youths. Most of the participants support it as follows.

One of them (code 5) says using social networks may affect the political attitude of the Iranian youths. Nonetheless, it cannot be generalized and this matter depends upon how much belief of people is sustainable. Another lecturer (code 8) believes that one of the inherent features of social media is to affect, change, and shape the attitude and conduct of audience, especially young people everywhere. Another instructor (code 3) points out that easy access to social networking sites can contribute to the development and the policy of a country. Another interviewee (code 7) claims that social media can promote the national solidarity by bringing people together. One of his counterparts (code 6) asserts that most researchers have argued that there is a positive relationship between using SNSs and improving political knowledge, political attitude and behavior of young people in a society. The other lecturer (code 1) believes that it can help young people increase their knowledge about governments and parties in a country by reading and gaining information about them. Therefore, they can judge and have a control over them properly in the case of having a real role in their country's fate.

Four interviewees (codes 2, 6, 9, 11) disapprove of the idea that social networking services leading to improving the political knowledge and changing the behavior of young people in a country. Two of the respondents (codes 12, 5) more or less believe that accessibility to SNSs cannot merely help the youths to improve their political knowledge. Rather, they require to have access to a various number of critics' viewpoints to easily understand and analyze different issues occurring in their community. Another lecturer (code 2) answers that in many cases it improves nothing. The other opponent of this trend (code 1) says that since media literacy and awareness of information sources among the Iranian youths seem not to be high, SNSs are not that effective in modifying and reconstructing their political knowledge, view, and demeanor. Whether social networking websites should be filtered or not is the seventh question of the list. The majority of the academics explicitly give a negative answer to this question. Their views and explanations are discussed below.

Two of the lecturers (codes 5, 11) are disagreed with blocking social networking services except for the websites which are immoral and have detrimental effects on children. In line with this explanation, another respondent argues that it depends on the contents of websites. They should be filtered if they are against moral issues. She also notes that in a democratic society, political information should not be considered as categorized information and it is individuals' right to be informed. Another participant (code 6) holds the same opinion to some extent and says that some age restrictions should be put on users who are under age. Nevertheless, filtering news websites and preventing the society from access to useful information is unreasonable and unacceptable. It makes people of a country fall behind with global issues and trends.

Another lecturer (code 3) takes the view that removing SNSs seems to be useless because new ones will suddenly emerge from somewhere else as soon as they are

discarded. The next interviewee (code 9) is of the opinion that filtering will not cause negative side effects of such networks to decrease .Another respondent just says that blocking can create a number of problems but he refuses to mention and explain them. The other lecturer argues that it is ludicrous to filter SNSs. Iranian people always finds ways to bypass the filtering. He also notes that when top authorities use these kinds of social media to join the international community, the significance of discourse comes to surface. Thus, it is pointless to filter the SNSs.

Other lecturers appear to have different opinions. One of them (code 11) disapprove of filtering, believing that all people of a nation need to experience modern technology and find their own way. Another participant (code 5) says that SNSs must be filtered if they work as an intelligence service for foreign countries. However, people must get familiar with the proper ways of using them. Another respondent argues that the websites which try to violate the red lines need to be filtered; otherwise, it leads to disorders within a society. Some websites which comply with the rules and regulations but release diverse opinions can be active to communicate freely based on the freedom of speech rights. Finally, one participant (code 4) is of the opinion that we live in the 21st century. One should not neglect the disadvantages of SNSs, but he must be free to share his knowledge with others so that he can contribute to improving his country.

The next question is about the Iranian youths' interaction concerning political issues through SNSs. Unlike the answer to the previous question, most of the lecturers and scholars give a positive reply to this question. Four of them just answer yes without any specific explanations. One of them (code 11) says that a quick look on SNSs will confirm this view. Another participant (code 7) says that social media have changed politics by two ways: direct contact with voters and advertising without advertising. Another interviewee takes the view that some of them, especially well educated students,

as well as critical and intellectual websites interact about political issues by SNSs. Another respondent (code 1) says that like most of countries around the world, Iranians are active in political activities during certain events like elections and some political trends. In his view, the Iranian youths use SNSs to exchange opinions on political events more than any other developing nations. The other lecturer (code 3) believes that during and after the end of the nuclear negotiations between Iran and six world powers they showed that they are really active in this regard.

However, three of them give a negative answer. In other words, they believe that The Iranian young people refuse to interact with another regarding political issues through SNSs. Only one of them (code 12) explains it, saying that most SNSs are wasting time and purposeless.

The ninth question requests the lecturers and scholars whether SNS filtering can stop the Iranian youths to get political knowledge they need regarding the domestic and international affairs. In answer to the question, all the respondents express similar opinions on this matter and give a negative answer. In other words, they believe that filtering or blocking social networking services appears not to be rational, effective, and practical. They also argue that there are always ways to reach these kinds of information. For example, they can flout the rules and employ anti-filtering devices to overcome filtering policies. One of the respondents (code 2) sarcastically says that they can stop us. She says "When information is not provided, ignorance will appear". The other lecturer (code 6) is of the opinion that SNS filtering fails to stop the Iranian youths to get political knowledge. She notes that the suppression of political activists and university students makes Iran's youths be passive in political activities, because they are afraid of the consequences.

The last question of the interview asks the academics to offer their alternative and constructive suggestions for not filtering social networking services. In answer to this question, they generally emphasize the importance of teaching people, raising their awareness of the events taking place around them, and laying down some rules and regulations and enforcing them in the society. Their opinions are discussed below.

One of the lecturers (code 9) says that filtering is a phenomenon taking place in a lot of countries and is not inherently bad. However, it can be regulated and set pragmatically based on the social needs and norms. Another lecturer (code 6) suggests that Students promote their critical media literacy to protect themselves against possible negative effects of social networks. Another participant (code 1) proposes that the most important tool be training. If we force someone to do something, it may backfire or have a negative effect on him. In contrast, training can help the society to understand the right way of using SNSs and it will become a culture for them soon.

Another two interviewees (codes 5, 11) stress the need for decision-makers to teach people to know how to use these kinds of websites and applications. Another respondent (code 12) believes that filtering is based on a wrong idea of governing in the postmodern era. States should not control their citizens' minds. He recommends that the primary objective of a state be the expansion and management of the different forms of public understanding. He also adds that, to reach this purpose, one needs to employ subtle approaches rather than physical interventions. The other lecturer (code 5) suggests that news networks be independent and free to inform people about advantages and disadvantages of different social networking services and meet their demands. He says that they must not tell lies and censor news according to their ideology and interests. He also argues that the best alternative is to let people know about what is happening in the country and the world.

4.10 Conclusion

This chapter provided the detailed information about the findings of the current research. Using various tables and figures the findings about the relationship between various variables were provided. Detailed information were given on the usage of the social network sites by Iranian students including the time they spend on these sites and their usage for seeking various political and non-political information. The positive correlation between SNSs usage specifically Facebook and Twitter and the percentage of their impact on the Iranian students' political knowledge, political attitude and political behavior was shown based on the objectives of the study. Following chapter concludes all the findings and it gives a precise picture of the findings.

CHAPTER 5: CONCLUSION, IMPLICATION & RECOMMENDATION

5.1   Introduction

This chapter contains five sections which are a summary of the thesis, major findings of the study, conclusion, implications, and recommendation for future study. The current study analyzed the relation between social network users and their political knowledge, attitude and behavior. The following sections discuss the major findings of the study and their implications. Moreover, based on the findings, some recommendations are made on the effects of the media on political knowledge of the social network users.

5.2   Summary of the Study

The current thesis was conducted in a mixed mode quantitative-qualitative mode of study and selected the sample of Iranian university students to collect quantitative data through a questionnaire followed by an emailed interview with Iranian media experts. Finding out the habits of social network usage by the Iranian university students and its relationship with the extent of their political knowledge, attitude, and behavior was the objective of this research. The research sample was selected randomly from the Iranian university students to collect the quantitative data. The present study determined the sample size by its targets. The sample size was selected with precision, as both smaller or larger sizes represent an error. It was tended to have bigger sample because a larger sample size will strengthen confidence in the findings by allowing for multiple statistical approaches (Hungler et al., 1999). The population of the present research was 62,448 students. Hence, the final sample size in the study was consisted of approximately 384 students (male and

female) . Researcher reached this number after determining sample size, according to Cochran in a multi stage cluster sampling method (Cochran, 1977).

In the first step, the states were selected based on the location of the universities (located in border town, city and downtown). This research was done in three public universities in Tehran, i.e., University of Tehran, Kharazmi University and Shahrood University of Technology where located in city, border town and down town, respectively. In the next step, the faculties and department were chosen based on multi stage cluster sampling (Refer to 3.7). In the end, a random sampling method was employed to select the students as respondents. As access to every student was impossible, a small segment of the population was selected because of two main reasons (1) availability of the study resources (finance, time, manpower); and (2) accessibility of universities. As a result, in the second step, three universities were selected within the selected states.

This study was based on the triangulation approach since it merges qualitative and quantitative research approach. Triangulation defines studying the same research problem from varied perspectives in terms of data sources, methods, investigators or theories (Denzin, 1989), so that the convergence of results can be obtained to increase their credibility. Accordingly, a study can be obtained through the combination of qualitative and quantitative approaches (Creswell, 2013). The use of interviews can help gather valid and reliable data that are relevant to research question(s) and objectives (Kahn et al., 1957). Therefore, an adopted survey questionnaire was used for quantitative research approach whereas qualitative study was based on interviews and the combination of the two shed the light on the inferences made on the results of the study.

Based on consideration of the two primary forms of questionnaire it was determined that a close-ended questionnaire would be appropriate in this study since it

allows the respondents to answer quickly to the questions. This study used a self-administrated questionnaire for quantitative data collection to get accurate, reliable and generalized results. Since the same questionnaire was given to all subjects, the data could be uniform, accurate and standard; and it could result in maximum cooperation of the respondents and the lowest chance of refusal from them. Therefore instrument employed was a 106-item questionnaire which was divided into seven parts.

Part A of the questionnaire with eight questions was about demographic information including the participants' age, university, gender, education level, family members, and location and accessing the Internet. Part B was twelve close-ended questions about political knowledge regarding different political parties and official figures in Iran, also about the parliament, the political movements of the country. This part ended with questions about political issues of other countries. Part C with nine questions in the Likert scale asked about the political use of the social network sites and different applications the students prefer to use. Part D with ten questions in the same scale was going to ask about the political attitudes of the students, their trust and interest. Five questions of Part E questions asked about political participation to express personal opinions in the Likert scale, such as writing to politicians or voting in social network sites. Part F of the questionnaire including eleven questions asked about the political behavior of the students in different political activities within the last twelve months like contacting political organizations, signing a petition, or taking part demonstration and strike. Questions about SNS in Part G included 39 questions about the use of the sites for different information they can get such as news and entertainments and other programs. Since the study discusses the 2009 presidential election events in Iran, it focused on the use of Facebook and Tweeter during the event to express ideas or exchange information.

An interview was used to have data collection that largely contained oral questions asked by interviewers as well as oral answers replied by research respondents. However, because of difficult access to the individuals, the questions of the interview were prepared in a written form. The participants of the study consisted of twelve lecturers and scholars from the Iranian universities of Tehran, Karaj, and Shahrood who have been using social media and instructing in various fields such as translation and communications. In order to rewrite their comments easily, they were numbered from 1 to 12 without any preferences in terms of the position or order. The academicians, from both genders and with different ages, were selected.

It should be noted that they were given the time period of one month (July) to reply to 10 given questions concerning the social network they used as well as political knowledge, not to mention the attitude and behavior of Iranian university students. Then, the answers to the questions and the respondents' opinions were received by e-mail.

In current study, the collected data were analyzed using SPSS and Structural Equation Modeling (PLS-SEM) approach provided by Smart-PLS. Structural equation modeling (SEM) is considered a family of statistic models for explaining the relationship among multiple variables (Hair, 2010). According to Hair, SEM is viewed as a more advanced data analysis technique and an extension of several multivariate techniques. It also represents a more general method for studying relationships among variables. Structural equation modeling process includes two main steps as follows; first being the Validating the measurement model and secondly being the Fitting the structural model (Kenis et al., 2002).

5.3   Major Findings of the Study

The results for the level of social network use by the Iranian university students shows that Facebook is more used then Twitter. The results of Mann Whitney test revealed that

overall there was a significant difference between using Facebook and Twitter among respondents and Facebook was relatively much more popular among students. According to the results, majority of the respondents used Twitter less than 15 minutes a day while for Facebook, less than half of the respondents used Facebook less than 15 minutes. The results showed that for all other time patterns, respondents used Facebook more than Twitter. A small percentage of the students spent more than three hours on Facebook while only a few were using Twitter more than three hours a day.

Purpose for using social network was evaluated using seven items including getting information and news, interaction with people, entertainments, self-expression, search scientific materials, search political materials and search economic materials. Among the items related to purpose for using social network, "interaction with people" has the highest mean, followed by "entertainments". The other two purposes of "self-expression" and "search for political materials" had less popularity among the respondents.

For the comparison of Facebook and Twitter as the source of information related to the location of the information source, respondents answered three questions based on local, national and international categories in terms of 5- Likert scale ranging from "never" to "always". According to the result, respondents used Facebook more than Twitter for the local information which was significantly different. For the national news, Facebook was considered as a source of information more than Twitter. Lastly for the international information, respondents again used Facebook more than Twitter.

For the type of the information that the respondents retrieve from Facebook and Twitter, respondents answered three questions in three categories of News, Politics and Family and Friend and it was found that, the highest mean score belonged to Family & Friend via Facebook which was more than Twitter with a significant difference. In the

category of News, it was found that Facebook was used more than Twitter. Respondents also use Facebook for Political issues more than Twitter. The results showed that Facebook had a higher position than Twitter in retrieving Political issues. These results also revealed that Twitter was used for political issues more than News and family and friends.

The study also attempted to find the difference between the usage of Facebook and Twitter for the current political groups in Iran including reformists, radical, opposition and other political groups. The results of identifying the time pattern of using social networks in relation to these political groups and parties revealed that Facebook was used more than Twitter for all these categories. For the 'Reformists' respondents used Facebook more than Twitter. In the 'Radical' group of respondents, Facebook was also considered to be used more than Twitter. Finally for the 'Opposition', respondents also trusted Facebook more than Twitter.

Social networks are places for the group discussions. Therefore, the usage of Facebook and Twitter was also studied in three categories of Friends, Experts and Academicians to find that which social network under the current study was used more. According to the results, the highest mean score was observed for discussion with Friend via Facebook which was more than Twitter. For discussion with Experts also Facebook was used more than Twitter. Facebook was higher than Twitter for discussion with Academician as well. Therefore, it can be concluded that Facebook was used more than Twitter for political discussion among the respondents.

The respondent's political knowledge about the different political parties and political figures in Iran was studied while the researcher was interested to know about the respondants' view on the parliament as well as the political movements of the country. According to these results, in the domains of national and international politics, a large

percentage of the respondents (78.6%) could recognize the organizations which are under the authority of Iranian Parliament and the Guardian Council in terms of dispute resolution. The second question in the national level about Minister of State in the current time government after the controversial impeachment in 2009 could receive a relatively small percentage (38.4%) of correct answers. In the international politics, almost the same percentage of the respondents (70.1%) could answer a foreign political question with the subject of Egyptian president after 2011 revolution while only 36.6% of them could name the Israel's intelligence and internal security service. As a result, the total score for Political Knowledge among respondents showed a moderate level of political knowledge. The results indicate that only above one fifths of respondent had a high level of political knowledge.

In the case of the respondents' attitude toward political issues, it was found that respondents have a moderate level of attitude toward such issues. From the questions, the highest overall mean belonged to the respondents' trust in the public officials followed by the belief that respondents considered most of the public officials as uncorrupted. However, the last and least item of political attitude belonged to devotion of the leaders whom the respondents believe that most of them are not faithful and loyal.

The main outcome variable in this research was related to respondent's political behaviour and the respondents' political participation in expressing the personal opinions such as writing to politicians, voting in the social network sites, contacting political organizations, signing a petition, or taking part demonstration and strike. As for the respondents' political activities within 12 months prior to the data collection of the current study, it was found that majority of the respondents participate in all the elections and cast their votes. In the second step, a majority of them try to convince their friends to vote for their supported candidates. However, a few percentage of the respondents have been

willing to express their political opinions to the politicians. According to the results, it was also found that a large number of respondents have ever contacted a civil servant on the national, regional or local level. Almost one third of the respondents also have ever signed a petition and only 7.4% have worked in the political parties. Therefore, it was concluded that respondents have a moderate level of political behavior. The results indicated also that just above one fifth of respondent had a high level of political behavior.

To summarize, according to the results of the current study that using social network websites have significant positive effect on their political knowledge, political behavior and their attitude for the participation in the political events. The results for the research objectives also revealed that the political attitude of the Iranian university students have significant positive effects on their political knowledge, behavior and attitude. It was also showed that political knowledge plays a mediating role in the political behavior of the students in the current study.

The results from the interviews with the university lecturers and scholars on their use of the social networks showed affirmative answer and reaffirmed that they use social networks in their leisure time or even at work and at the university. It was also found that they use almost all major social networking sites including Facebook and Twitter.

In the case of political knowledge of Iranian students, it was found that participants believed that easy access to modern information sources has increases political knowledge of the students. They also claimed that Iranian university students continue to be aware of all national and international events. For the kind of political knowledge of social networking sites which leads to filtering them by the government, the lecturers' answers seemed to be almost different with a variety of responses. A few interviewees assert that publishing and disseminating political news against the current establishment of the country may make the government remove or block some social media. They say

that such networks could actually help grow political knowledge and awareness among people, which means a menace to the security of the nation for the government. That is why it attempts to prevent its citizens from accessibility to free information through social networking sites. The other finding of the study in the interview section is related to the current status of social network sites in Iran. The participants' answers revealed that over half of them are entirely dissatisfied with the situation of the social networks.

Lecturers and scholars in the current study responded in different ways on whether the access and use of social networking services can improve political knowledge and change the political attitude and behavior of the Iranian youths. They mostly believed that using social networks may affect the political attitude of the Iranian youths. Moreover, they mentioned that inherent features of social media are to affect, change, and shape the attitude and conduct of audience, especially young people everywhere. Also, easy access to social networking sites can contribute to the development and the policy of a country. Social media can also promote the national solidarity by bringing people together. It can help young people increase their knowledge about governments and parties in a country by reading and gaining information about them. Therefore, they can judge and have a control over them properly in the case of having a real role in their country's fate. Nevertheless, there were four interviewees also who disapproved the idea that social networking services leading to improving the political knowledge and changing the behavior of young people in a country.

One of the main aspects of the social networks in Iranian society is their filtering issue. Most of them are blocked totally or in part by the government. It was found in the study that the majority of the academics explicitly disagree with blocking social networking services except for the websites which are immoral and have detrimental effects on children. They believed that websites should be filtered if they are against moral

issues. They also mentioned that in a democratic society, political information should not be considered as categorized information and it is individuals' right to be informed.

The general view therefore was the filtering news websites and preventing the society from access to useful information is unreasonable and unacceptable. It makes people of a country fall behind with global issues and trends. As for the effects of the blocking the access to social networks on the political knowledge, all the respondents expressed a negative opinion. They believed that filtering or blocking social networking services appears not to be rational, effective, and practical. They also argue that there are always ways to reach these kinds of information. For example, they can flout the rules and employ anti-filtering devices to overcome filtering policies. Finally, in case of alternative suggestions for not filtering social networking services in Iran, scholars and lecturers in the current study generally emphasized on the importance of teaching people, raising their awareness of the occurring events, and laying down some rules and regulations and enforcing them in the society. Therefore, enlightening society members on use of the social networks can play a vital role.

5.4   Conclusion

The role that social networks such as Facebook and Twitter play in enlightening Iranian people and mobilizing them is a two-tier mechanism. In the first tier, there is the networking inside the worldwide web and the second tier is the realization of that network in the real world. Based on the findings of the current study, it can be concluded that using social networks like Facebook and Twitter has significant influence on the political knowledge and as a result on the users' motivation and political behavior and somehow on the Iranian society. Moreover, development of mass communication, increasing access to the news and textual, audio and visual reports and using the media even in the remote

areas convinced the critics to consider the new communication tools as a platform for rapid globalization.

Society such as a living thing goes under continuous changes, evolution and revolution which lead it through its development. Such changes are significant and undeniable characteristics of the society. In the political arena, mass communication plays an effective role as it has effects on different sectors from public opinion to the government. It motivates the supervision on the government decisions and operations, strengthens non-governmental organizations and encourages the public to participate in the national events.

Mass communication and social networks can stimulate the national and political feelings in the society and this may lead into uncovering the corruption in the political parties. The communication role of the mass media helps in delivery of messages from public to the government and it can depict the government activities, plans and operations for the society. Such progressive tools can improve the political knowledge of the users and their attitudes.

The findings of the current study showed that there is a significant and meaningful relation between the use of the social networks and political behavior of the Iranian university students. These findings are in line with the views by Putnam (2000) and McClurg (2003). Putnam argued that the value of the social networks and the social contacts are the core idea of the social capital while he defined the social capital as the connections between the individuals in relation to the social networks and norms. For Putnam, the essential element of norms in the social networks characterizes such networks and the social capital consists of two main components of norms and networks while the trust is its core element. Putnam believes that norms and social networks in the society shape the behavior of its members in a special and predefined framework in order to

produce social capital while its products are political behavior and participation. In his views, when the social capital is used, it will not shrink rather its size will be increased.

This means that social network components reproduce the social capital and the positive relation between these components and different aspects of the political behavior results in higher levels of political participation of the members of the society. McClurg argues that relations between people, friends and family in the social networks increase the demands for the political behavior and participation among the people (McClurg, 2003). On the other side, it provides the access to larger information sources. Moreover, it creates a platform for political discussion and ultimately motivates the political participation in form of new groups inside the social networks. Such networks are more engaged in the political activities.

The results of the current study confirm to some extent that civil society in Iran is not developed cohesively so it can hoped that presence of the social networks and their strength can help in developing the infrastructures, creating the culture of networking, increasing the public participation and therefore it will lead into higher levels of social capital. These improvements will result in efficiency, reduction of the government engagement in social and business activities, decentralization, correction of incongruous structures and accountability. Indeed, social networks are among the effective elements in cultural reproduction in social, political and organizational sectors. These networks help in shaping the relationships between people and organizations in different domains including the political life in the society. Social networks have effects on the social capital in terms of people relations and invite people to cooperation, coordination and participation. Social networks help in building mutual trust and good intention and they strengthen mental convergence.

The findings of the current study showed that there is generally a direct and positive relation between the level of use of social networks and political knowledge, attitude and behavior. The results showed that when there is a moderate level of participation in the society, the level of political knowledge and activities are also moderate. Thus, it is probable that in the societies rather than Iran with higher levels of social participation in civil society, people have higher levels of political behavior. It should be added that social networks are only one of the elements which affect the political behavior while such behavior does not happen in a short period of them and all at once. However, social networks are an important anticipator for the political participation as it seems that such networks are prerequisites for civil culture and stable democracy. In other words, social participation is a part of stable cultural life which helps the democracy to survive.

5.5 Implications

The results of the current study can help the governments to take a better position regarding the social networks as their negative position against this new phenomenon can bring about reverse results. If governments change their traditional way of looking into political participation, it will definitely improve their relation with the public. The findings of the study also helps the decision makers to manage the social networks in a proper and efficient way so that corrupted groups cannot downgrade the healthy stream of political participation. The current study also showed the moderation in the different sectors of the students, thus government can have a positive picture of the opposing ideas. Educating young students to use the social networks for civil life and activities is another implication of the study which obliges the universities to look into the social participation through social networks.

The results also confirm the views on the necessity of deploying an intelligent filtering rather than indiscriminate blocking of the social network websites. The findings also suggest that officials and managers in the government agencies can utilize available capacity in the social networks to increase different political and social capacities in their respective fields and activities. Government can include social networks in its websites and portals in order to disseminate information on their agenda and decisions to build a stable public stand in the society. Such an opportunity will increase the mutual understanding and friendship between the decision makers and the public. According to the results of the current study, political parties in Iran have little impact on the social network users, thus based on the findings it can be suggested that the political parties use such emerging potential to increase the political participation of Iranian students. In the practical implication, it is suggested that different Iranian ministries and government agencies take part actively in the communication channels using social network sites in order to interact with the public. This will help them to inform the public about their work and progresses and they can receive and analyze the feedback from different social sectors and change their services to the benefit of both public and the government.

5.6 Recommendations for the Future Studies

Communication technologies in general and specifically social networks are among those technologies that witnessed rapid and vast revolution in the recent years and their progress is continuous. Such technologies have progressive potentials that are closely related to human capacities. They are also becoming a consistent component of the social life. New developments in different aspects of the human life are realized mostly through information and communication technologies, that's why the current time is named information age in the human history. Such developments will surely add to the features

and characteristics of the communication tools and applications. In the cultural side, such technologies increase the public awareness and they have effects on the cultures in the societies both in positive or negative ways. So far, this situation has been beneficial for those societies that could absorb and learn the technology in a quick way.

Diversity of the communication applications added new aspects to the human societies so that some of the traditional ways of communication have lost the ground. For example, there are different special or hobby-like groups in the social networks which attract followers of specific cultures, activities, beliefs and so on. Therefore, it is suggested that the future studies focus on a wide range of applications and a wider range of subjects from different social layers. In the time of the current study, Facebook and Twitter were the main players of the social networks in Iran but it can be seen that communication applications such as Telegram, Whets App, Instagram and few others are finding their audiences inside Iranian society and future studies should cover them and their users who are not necessarily university students, rather they represent several social layers. Considering the expansion of mobile networks and their usage in political events such as elections and their impact on the political knowledge of their users, efficient management of the newly developed social network sites should be adopted by the government and political parties and public movements. Therefore, new studies should consider these facts and focus on the mobile social network sites for the political knowledge, attitude and behavior of Iranian users. The users also should not be only limited to the university students.

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APPENDIX A

QUESTIONNAIRE

Dear Participant,

My name is Abdolreza Alami and I am a PhD candidate at the University of Malaya (Malaysia). For my doctoral dissertation, I am examining the relationship between Iranian students' use of social networks and their political knowledge, political attitude and political behavior in recent years. Because you are an Iranian student that is using social networks, I am inviting you to participate in this research study by completing the attached questionnaire which will require approximately 15 minutes of your time.

There is no compensation for responding nor is there any known risk. In order to ensure that all information will remain confidential, please do not include your name. Completion and return of the questionnaire will indicate your willingness to participate in this study. Participation is strictly voluntary and you may refuse to participate at any time. If you choose to participate in this project, please answer all questions as honestly as possible and return the completed questionnaires promptly.

I sincerely thank you for taking the time to assist me in my educational endeavors. If you require additional information or have questions, please contact me at the number listed below.

Sincerely,

Abdolreza Alami

HP No: +60176263459

ara1352@gmail.com

A. **Profile**

A.1. Gender: □ Female □ Male

A.2. Age: ....

A.3. Major of study............. Faculty.......... University.......... Education Level …..…

A.4. Father's education level:

a. non-formal education   b. Primary school   c. Secondary school

d. Diploma   e. BA   f. MA   g. PhD   h. Others (Please Specify)

A.5. Mother's education level:

a. non-formal education   b. Primary school   c. Secondary school

d. Diploma   e. BA   f. MA   g. PhD   h. Others (Please Specify)

A.6. Number of siblings: a. one   b. Two   c. Three   d. Four and more

A.7. Where was you living in before studying in university?

A. Rural areas   B. Urban Areas

A.8. Do you have access to the internet at home?   A. Yes   b. No

A.9. which political party does you side with?

A. regime conservative's   B. regime reformist C. religious national movements inside the regime   D. regime oppositions

A10. During the last presidential election, which campaign did you support?

A. Rohani   B.galibaf   C.Jalili   D. Haddad   E.Welayati   F. rezayi   G. gharazi   H. Aref

Part B. Political Knowledge

B.1. In accordance with Article 73 of Iran's constitution, which organization is qualified to interpret the constitution?

a. Guardian Council   b. Parliament   c. Supreme Court   d. The Judiciary

e. I don't know

B.2. which organization is under the authority of Parliament and the Guardian Council's dispute resolution?

a. The court   b. The State General Inspection Organization

c. The Supreme Court   d. The Expediency Council   e. I don't know

B.4. which of the following individuals assigned to the staff of the Sustainability Movement?

a. Doctor Ahmad Tavakoli, Elias Nader, Kuhkan

b. Hj Rasayi, Kouchakzadeh, Hj Agha Tehrani

c. Doctor Jalali, Mohammad Reza Bahonar, Hj Abu Torabi

d. I don't know

B.5. what was the slogan of Mohammad Bagher Galibaf in the election campaign?

a. Government of 'policy and Hope'.   b. We Can

c. Good Life is graceful for Iranians   d. Alliance for Progress

e. I don't know

B.6. Alliance for Progress was the initial coalition, of which of the candidates in the eleventh presidential election?

a. Abu Torabi, Al Isaac, Pour Mohammadi   b. Rohani, Aaref

c. Qalibaf, Velayati, Hadad Adel   d. None of them

e. I don't know

B.7. what is the name of Israel's intelligence and internal security service?

a. Shin Beth   b. Mossad   c. Shabak   d. A and C   e. I don't know

B.8. what was the spark of Arabic Spring in Muslim countries? And in which country it was?a. Egypt – Al Tahrir Square sit-in

b. Tunisia – Self- burning of a street vendor (Mohammad Abulazizi)

c. Libya – Self- burning of a street vendor (Mohammad Abulazizi)

d. Syria-Presidential Election

e. I don't know

B.9. Which Prime Minister of Turkey and in which World Summit had a direct verbal clash with Israeli president regarding the support of the Palestinian people?

a. Erdogan- Davos, Switzerland

b. Erdogan- The meeting of the United Nation Organization

c. Abdullah Gul - Davos, Switzerland

d. Abdullah Gul – The meeting of the United Nation Organization

e. I don't know

B.10. what was the name of Egypt's first Islamist president after the revolution in 2011?

a. General Alsysy   b. Mohammed Morsi   c. Hosni Mubarak

d. Amr Moussa   e. I don't know

B.11. Who was the first Iranian negotiator on the nuclear issue with G5 +1 representative with Ms. Ashton?

a. Saeid Jalili   b. Dr. Hasan Rohani   c. Doctor Mohammad Javad Zarif

d. Ali Larijani   e. I don't know

B.12. Who was the late Minister of state government after the controversial impeachment in 2009?

a. Mohammad Najjar   b. Jamal Karimi rad   c. Ali Kordan

d. Sadeg Mahsoli   e. I don't know

B.13. which international body has the duty of overseeing the activities related to the country's nuclear energy?

a. UN Security Council   b. International Atomic Energy Agency

c. Human Rights Watch   d. A and B   e. I don't know

Part C. Political use on the Social Networks	Strongly disagree	Disagree	No idea	Agree	Strongly agree
C.1. I use the Social Networks to get political information					
C.2. I discuss political issues with friends through the Social Networks					
C.3. I express my political opinion to the media through the Social Networking sites					
C.4. I express my political opinion to politicians through the Social Networks					
C.5. I can easily get political information through the Social Networks					
C.6. I can comfortably discuss political issues with other Social Networks users					
C.7. I express my political opinion through the Social Networks					
C8. I discuss political issues with researcher through the Social Networks					
C8. I discuss political issues with families through the Social Networks					

Part D. Political Attitudes

Three variables including political interest, political trust in the government, and political efficacy were used as political attitudes

		Strongly disagree	Disagree	No idea	Agree	Strongly agree
political interest	D.1. In general, I am interested in politics					
	D.2. In general, I am concerned about political issues					
political trust in the government,	D.3. Most of our leaders are devoted to service					
	D.4. Government is always doing the right thing					
	D.5. Politicians are wasting people's tax money					
	D.6. Public officials don't care much about what people like me think					
	D.7. Most of the public officials are incorruptible					
	D.8. Politicians never tell us their long-term plans					
political efficacy	D.9. People like me don't have any say about what the government does					
	D.10. Politics seems so complicated that a person like me can't really understand					
	D.11. Government doesn't care about people like me					

Part E. Political Participation

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
E.1.I express my opinions through social networks (e.g. Facebook, Twitter)					
E.2. I write and express my political opinion to the politicians.					
E.3. I campaign for my supported candidate					
E.4. I persuade my friends to vote for my supported candidate.					
E.5. I attend campaign rallies.					
E6.. I vote in every election.					

Part F. Actual Behavior
There are different ways of attempting to bring about improvements or counteract deterioration in society. During the last 12 months, have you done any of the following?

	Yes	No
F.1. Contacted a politician		
F.2. Contacted an association or organization		
F.3. Contacted a civil servant on the national, regional or local level		
F.4. Worked in a political party		
F.5. Worked in a [political action group]		
F.6. Worked in another organization or association		
F.7. Signed a petition		
F.8. Raised funds		
F.9. Contacted or appeared in the media		
F.10. Participated in illegal protest activities		
F.11. Attended a political meeting or rally		
F.12. Other activity		

Part G. Social Netwrorks Use
G.1. My main purpose for using social network sites is to:

	Strongly disagree	Disagree	No idea	Agree	Strongly agree
1) Get information and news					
2) Do an interaction with people					
3) Entertainments					
4) Self expression					
5) Search scientific materials					
6) Search political materials					
7) Search economic materials					
8) Others (Please mention)					

G.2. During the years 2009 to 2013, the most important source of political information amaong social network sites for me was:

	Strongly disagree	Disagree	No idea	Agree	Strongly agree
a. Facebook					
b. Twitter					
c. Others (mention ………….)					

G.3. Over the last few years (2009-present), how long have you used the following sources of information? (Please check only one box for each column).

	More than 3 hours	Around 2 hours	Around 1 hour	Around half an hour	Less than 15 minutes
a.Facebook					
twitter					
c. Others (mention …….)					

G.4. Over the last few years (2009-present), how often have you used the following sources of information? (Please check only one box for each column).

	always	often	sometimes	seldom	never
a.Facebook					
b.Twitter					
c. Others (mention …………….)					

G.5. I surf local political events in:

	Strongly disagree	Disagree	No idea	Agree	Strongly agree
a.Facebook					
b.Twitter					
c. Others (mention ………….)					

G.6. I surf national political events on:

	Strongly disagree	Disagree	No idea	Agree	Strongly agree
a.Facebook					
b.Twitter					
c. Others (mention ……………..)					

G.7. I surf international political events on:

	Strongly disagree	Disagree	No idea	Agree	Strongly agree
a.Facebook					
b.Twitter					
c. Others (mention …………….)					

G.8. To get political information on Facebook

	Strongly disagree	Disagree	No idea	Agree	Strongly agree
a.I often visits the pages and videos of news and press sites.					
b. I often refer to the pages and video of political activists and groups.					
c.I often refer to the pages of my friends and acquaintances					

G.9. To get political information and videos on Twitter

	Strongly disagree	Disagree	No idea	Agree	Strongly agree
a. I often visit the pages and videos of news and press sites.					
b. I often refer to the pages and video of political activists and groups.					
c. I often refer to the pages of my friends and acquaintances.					

G.10. In recent years (2009 to 2013) in using Facebook

	Strongly disagree	Disagree	No idea	Agree	Strongly agree
a. I have evaluated green groups and critics of the government's reform-seekers.					
b. I have evaluated the regime advocates and fundamentalist groups.					
c. I have evaluated the regime oppositions living abroad.					
d. I have surfed the pages of all the political groups.					

G.11. In recent years (2009 to 2013) in using twitter

	Strongly disagree	Disagree	No idea	Agree	Strongly agree
a. I have evaluated green groups and critics of the government's reform-seekers.					
b. I have evaluated the regime advocates and fundamentalist groups.					
c. I have evaluated the regime oppositions living abroad.					
d. I have surfed the pages of all the political groups.					

G.12. Using the Facebook,

	Strongly disagree	Disagree	No idea	Agree	Strongly agree
a. I discuss with friends and family, as a group member.					
b. I discuss with political activists and experts, as a group member.					
c. I discuss with professors and researchers, as a group.					

G.13. Using the Twitter,

	Strongly disagree	Disagree	No idea	Agree	Strongly agree
a. I discuss with friends and family, as a group member.					
b. I discuss with political activists and experts, as a group member.					
c. I discuss with professors and researchers, as a group.					

INTERVIEW QUESTIONS

Questions for an E-mailed Interview with Iranian University Lecturers and Scholar about

Social Network Use and Political Knowledge, Attitude and Behavior of Iranian University Students

Name:

Age:

Gender:

Occupation:

Positions at the University

1-   Are you using social networks?

2-   Which social networks do you use?

3-   Do you think that political knowledge of Iranian students has declined in recent years? How do you justify your answers?

4-   In your opinion, what kind of political knowledge is concerned with social networking sites that leads the government to filter the sites and why?

5-   How do you describe the current status of social network sites in Iran now??

6-   Do you think that access and use of SNS can improve political knowledge or change the political attitudes and behavior among the youth? If yes, How?

7-   Should be social networking sites filtered? If yes/ no why?

8-   In your opinion, do youth in Iran interact through SNSs regarding political issues?

9-   Do you think that SNS filtering can stop Iranian youth to get political knowledge they want regarding the domestic and international affairs?

10-   What is your alternative suggestion/s for SNS filtering in Iran?