

**A STUDY ON THE ROLE OF INTENSITY OF SOCIAL
NETWORKING SITE USAGE IN PROMOTING
SOCIAL CAPITAL FOR WILLINGNESS
TO COLLECTIVE ACTION**

Thesis Submitted to
Cochin University of Science and Technology
For the Award of the Degree of
Doctor of Philosophy
Under the Faculty of Social Sciences

By

SANGEETHA K. L.

Under the Supervision of

Dr. D. Mavoothu
Professor



SCHOOL OF MANAGEMENT STUDIES
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY
KOCHI – 682 022

May 2017

A Study on the Role of Intensity of Social Networking Site Usage in Promoting Social Capital for Willingness to Collective Action

Ph.D. Thesis under the Faculty of Social Sciences

Submitted by

Sangeetha K. L.

School of Management Studies
Cochin University of Science and Technology
Kochi – 682022, Kerala, India
Email: sksangeetha99@gmail.com

Supervising Guide

Dr. D. Mavoothu

Professor
School of Management Studies,
Cochin University of Science and Technology
Kochi – 682022, Kerala, India
Email: mavoothu@rediffmail.com

May 2017



School of Management Studies
Cochin University of Science and Technology
Kochi - 682 022, Kerala, India



Dr. D. Mavoothu
Professor

Ph: 9400076884
Email:mavoothu@rediffmail.com

Certificate

This is to certify that the thesis entitled “**A Study on the Role of Intensity of Social Networking Site Usage in Promoting Social Capital for Willingness to Collective Action**” is a record of the bona fide research work done by **Ms. Sangeetha K.L.** under my supervision and guidance and it is adequate and complete for the requirements of submitting for the award of the Degree of Doctor of Philosophy under the Faculty of Social Sciences of Cochin University of Science and Technology, Kochi-22. This work did not form part of any dissertation submitted for the award of any Degree, Diploma, Associateship, Fellowship or other similar title or recognition from this or any other institutions. Also, I certify that the plagiarism check was done for this work using the official facility in the CUSAT Library and found satisfactory. All the relevant corrections and modifications suggested by the audience during the pre-submission seminar and recommended by the Doctoral Committee have been incorporated in the thesis.

Place: *Kochi-22*
Date: *29/05/2017*

(D. Mavoothu)
Supervising Guide

Declaration

I, Sangeetha K.L., hereby declare that the thesis entitled “**A Study on the Role of Intensity of Social Networking Site Usage in Promoting Social Capital for Willingness to Collective Action**” submitted to the Cochin University of Science and Technology (CUSAT) for the award of the Degree of Doctor of Philosophy under the Faculty of Social Sciences is a record of the bona fide research work done by me, under the supervision and guidance of Dr. D. Mavoothu, Professor, School of Management Studies, CUSAT, under the Faculty of Social Sciences of CUSAT, Kochi, Kerala, India.

I further declare that this thesis has not previously formed the basis for the award of any Degree, Diploma, Associateship, Fellowship or any other similar title or recognition.

Place: *Kochi* - 22

Date: *29/05/2017*

(Sangeetha K.L.)

Research Scholar
SMS, CUSAT

Acknowledgement

At this moment of accomplishment, I thank God Almighty for all his blessings, my teachers for sharing their wisdom and my family for all the emotional support.

First and foremost, I wish to place on record my indebtedness to my supervising guide, Prof. (Dr.) D. Mavoothu, for his inspiring and systematic guidance without which this work would never have been completed. His understanding, encouragement and personal guidance have provided a good basis for the present thesis. I am deeply indebted to him for his patience and support at every stage of this research work. I gratefully acknowledge his effort in reviewing the drafts and final research report.

My sincere thanks to Dr. Manoj Edward, Associate Professor, SMS, CUSAT, Member of my Doctoral Committee, for his support and encouragement.

I express my sincere gratitude to Prof. P. Ramachandra Poduval, Former Director, SMS, CUSAT, for his scholarly advice for this research work.

A very special thanks to Dr. Sebastian Rupert Mampilly, Former Professor, SMS, CUSAT, who was a mentor to me on many stages of my research process especially for the research methodology sessions during the Ph.D. Course Work.

My sincere thanks to the Director of SMS, Prof. (Dr.) Moli P. Koshy and Prof. (Dr.) M. Bhasi, Dean, Faculty of Social Sciences, CUSAT and all the Faculty Members and Staff of SMS, CUSAT, for their support and co-operation in the course of my study.

My special thanks to all fellow research scholars for their moral support and encouragement. I would like to particularly mention Dr. Veeva Mathew for his support during the data analysis.

I am deeply indebted to all the respondents (members of Clubs/Association and social networking sites), from whom the data for this study were collected, for their co-operation and patience in responding to the questionnaire.

Finally, I would like to acknowledge the contribution of those whose names have not been mentioned but who have, nevertheless, played their part in making this research work successful.

(Sangeetha K, L.)

Contents

Chapter 1

INTRODUCTION	01 - 23
1.1 Introduction	02
1.2 An Overview of Social Networking Sites	05
1.2.1 Social Media	05
1.2.2 Social Networking Sites	07
1.2.3 History of SNS	09
1.2.4 Growth and Development of SNS in India	13
1.2.5 Social Networking Sites and Society	15
1.3 Importance of Social Capital	17
1.4 Social Media and Social Capital	20
1.5 Chapter Schema	22

Chapter 2

LITERATURE REVIEW	25 - 78
2.1 Concept of Social Capital.....	26
2.2 Sociological Approaches to Social Capital	28
2.2.1 Robert D Putnam.....	28
2.2.2 Bourdieu.....	29
2.2.3 James Coleman	30
2.2.4 Portes and Lin	31
2.2.5 Burt	32
2.3 Social Capital in Relation to other Forms of Capital	33
2.4 Types of Social Capital	35
2.4.1 Network Perspective.....	36
2.4.1.1 Bridging Social Capital	36
2.4.1.2 Bonding Social Capital	39
2.4.2 Social Structure Perspective	40
2.4.2.1 Structural Social Capital	41
2.4.2.2 Cognitive Social Capital	43
2.4.2.3 Relational Social Capital	44
2.4.3 Strong Ties vs. Weak Ties	44
2.5 Measurement of Social Capital.....	45
2.6 Predictors of Social Capital	48
2.6.1 Social Network: Online and Offline.....	49
2.6.2 Social Networking Site Usage	51
2.6.3 Social Trust.....	58
2.7 Outcomes of Social Capital	60
2.7.1 Health Outcomes	61
2.7.2 Educational Outcomes	61

2.7.3	Social and Economic Development	62
2.8	Collective Action	64
2.9	Personality Variables	69
2.9.1	Neuroticism.....	71
2.9.2	Extraversion.....	72
2.9.3	Agreeableness	73
2.9.4	Conscientiousness	73
2.9.5	Openness to Experience.....	74
2.10	Gaps in the Literature.....	76
2.11	Chapter Summary	77

Chapter 3

CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT..... 79 - 106

3.1	Theoretical Background	80
3.1.1	Uses and Gratification Theory	81
3.1.2	Social Resource Theory	84
3.2	Conceptual Model and Relationships between Variables	85
3.2.1	Intensity of SNS Usage and Social Capital.....	89
3.2.1.1	Intensity of SNS Usage and Bridging Social Capital	90
3.2.1.2	Intensity of SNS Usage and Bonding Social Capital.....	91
3.2.1.3	Intensity of SNS Usage and Cognitive Social Capital.....	92
3.2.1.4	Intensity of SNS Usage and Social Trust	93
3.2.2	Social Trust and Bridging/Bonding Social Capital	94
3.2.3	Social Capital and Collective Action	96
3.2.4	Socio-demographic Variables	100
3.2.5	Moderating Role of Personality Traits	103
3.2.6	Comparing Online and Offline Social Capital	104
3.3	Chapter Summary	105

Chapter 4

RESEARCH METHODOLOGY..... 107 - 133

4.1	Rationale of the Study	108
4.2	Statement of the Problem	109
4.3	Objectives of the Study	110
4.4	Variables in the Study	111
4.4.1	Intensity of Social Networking Site Usage.....	111
4.4.2	Intensity of Participation in Clubs and Associations.....	112
4.4.3	Social Trust.....	112
4.4.4	Bridging Social Capital	113
4.4.5	Bonding Social Capital.....	113
4.4.6	Cognitive Social Capital.....	113
4.4.7	Willingness to Collective Action	114
4.4.8	Personality Traits	114

4.4.9 Demographic Variables of the Respondents	114
4.5 Scope of the Study	115
4.6 Hypotheses	115
4.7 Research Design	117
4.8 Sample Design	117
4.9 Instruments for Measurement of Variables	118
4.10 Data Collection Method	121
4.11 Structure of Questionnaire.....	121
4.12 Pre-testing and Pilot Study	122
4.13 Reliability and Exploratory Factor Analysis	122
4.13.1 Intensity of SNS Usage and Intensity of Participation in Clubs/Associations	123
4.13.2 Bridging Social Capital	124
4.13.3 Bonding Social Capital.....	125
4.13.4 Cognitive Social Capital.....	127
4.13.5 Social Trust.....	128
4.13.6 Willingness to Collective Action.....	129
4.13.7 Personality Traits.....	131
4.14 Chapter Summary	133

Chapter 5

DATA ANALYSIS : SAMPLE PROFILE AND

HYPOTHESES TESTING..... 135 - 172

5.1 Metrics of Data Collection	136
5.2 Demographic Profile of the Respondents.....	137
5.2.1 Age Profile of Respondents	137
5.2.2 Gender Profile of Respondents	138
5.2.3 Marital Status of Respondents	139
5.2.4 Educational Qualification of Respondents.....	139
5.2.5 Religion-wise Classification of Respondents	140
5.2.6 Location of Respondents	141
5.2.7 Occupation of Respondents	142
5.2.8 Income Profile of Respondents	143
5.3 Profile of Respondents According to SNS Usage Characteristics	143
5.3.1 SNS Membership Details of Respondents	144
5.3.2 SNS Membership Acquaintance of Respondents.....	144
5.3.3 Number of SNS Friends of Respondents	145
5.3.4 Time Spent on SNS by Respondents	146
5.3.5 Frequency of Log-in by Respondents.....	146
5.3.6 Device Used for Access to SNS.....	147
5.4 Descriptive Statistics of Variables under the Study.....	148
5.5 Analysis of Normality of Data.....	149
5.6 Analysis of Relationship between Variables	150

5.7	Hypotheses Testing: A Compendium	151
5.8	Chapter Summary	172

Chapter 6

DATA ANALYSIS: INTEGRATED MODEL ANALYSIS 173 - 208

6.1	Introduction	174
6.2	Structural Equation Modelling	174
6.3	Partial Least Square	175
6.4	Analysis of Measurement Model: Online	176
6.4.1	Reliability Analysis	177
6.4.2	Validity Analysis.....	178
6.5	Analysis of Structural Model: Online	180
6.5.1	Model Fit and Quality Indices	181
6.5.2	Path Co-efficient and p Values for Structural Model	183
6.5.3	R Squared Co-efficient Results	184
6.5.4	Q Squared Co-efficients Results	185
6.5.5	Integrated Model: Online.....	186
6.6	Mediation Analysis	188
6.7	Moderation Analysis with Personality Variables	192
6.7.1	Extraversion	193
6.7.2	Agreeableness	195
6.7.3	Conscientiousness	197
6.8	Analysis of Measurement Model: Offline	199
6.8.1	Reliability Analysis	200
6.8.2	Validity Analysis.....	200
6.9	Analysis of Structural Model: Offline	202
6.9.1	Model Fit and Quality Indices	202
6.9.2	Path Co-efficient and p Values for Structural Model	203
6.9.3	R Squared Co-efficient Results	204
6.9.4	Q Squared Co-efficients Results	204
6.9.5	Integrated Model: Offline	205
6.10	Chapter Summary	208

Chapter 7

DISCUSSION OF FINDINGS AND CONCLUSION 209 - 234

7.1	Introduction	210
7.2	Summary of Findings.....	210
7.3	Findings and Discussion	212
7.3.1	Socio-demographic Profile and SNS Usage Characteristic of Members	212
7.3.2	Effect of Socio-demographic Variables on Willingness to Collective Action	214

7.3.3 Relationship between Intensity of SNS Usage and Social capital	215
7.3.4 Relationship between Social Capital and Willingness to Collective Action	218
7.3.5 Comparison of Online Model with Offline Social Network	221
7.3.6 Mediating Role of Social Trust	233
7.3.7 Moderating Effect of Personality Traits	233
7.4 Implications of the Study	225
7.4.1 Theoretical Contributions	225
7.4.2 Practical Implications	226
7.5 Limitations of the Study	229
7.6 Scope for Further Research	230
7.7 Conclusion.....	232
REFERENCES.....	235 - 271
APPENDICES	273- 283
LIST OF PUBLICATIONS	285 - 286

List of Tables

Table 4.1	Sample Size Based on Quota	118
Table 4.2	Instruments for Measurement of Variables	120
Table 4.3	Structure of Questionnaire: Online Category	121
Table 4.4	Structure of Questionnaire: Offline Category	122
Table 4.5	Reliability Analysis – Intensity of SNS Usage and Participation in Club/Association	123
Table 4.6	KMO and Bartlett’s Test of Sphericity – Intensity of SNS Usage and Participation in Club/Association	124
Table 4.7	Reliability Analysis – Bridging Social Capital	124
Table 4.8	KMO and Bartlett’s Test of Sphericity –Bridging Social Capital.....	125
Table 4.9	Reliability Analysis – Bonding Social Capital	126
Table 4.10	KMO and Bartlett’s Test of Sphericity – Bonding Social Capital.....	126
Table 4.11	Reliability Analysis – Cognitive Social Capital.....	127
Table 4.12	KMO and Bartlett’s Test of Sphericity – Cognitive Social Capital.....	127
Table 4.13	Reliability Analysis – Social Trust.....	128
Table 4.14	KMO and Bartlett’s Test of Sphericity – Social Trust	129
Table 4.15	Reliability Analysis – Willingness to Collective Action.....	129
Table 4.16	KMO and Bartlett’s Test of Sphericity – Willingness to Collective Action.....	130
Table 4.17	Reliability Analysis – Personality Traits	131
Table 4.18	KMO and Bartlett’s Test of Sphericity – Personality Traits (Online).....	132
Table 4.19	KMO and Bartlett’s Test of Sphericity – Personality Traits (Offline)	132
Table 5.1	Data Collection Details.....	136
Table 5.2	Age Profile of Respondents	138
Table 5.3	Gender Profile of Respondents	139
Table 5.4	Marital Status of Respondents	139

Table 5.5	Educational Qualification of Respondents	140
Table 5.6	Religion-wise Classification of Respondents	141
Table 5.7	Location of Respondents	141
Table 5.8	Occupation of Respondents	142
Table 5.9	Income of Respondents.....	143
Table 5.10	SNS Membership Details of Respondents.....	144
Table 5.11	SNS Membership Acquaintance of Respondents.....	145
Table 5.12	Number of SNS Friends of Respondents.....	145
Table 5.13	Time Spent on SNS by Respondents.....	146
Table 5.14	Frequency of Log in by Respondents.....	147
Table 5.15	Number of Log in a day by Respondents	147
Table 5.16	Device Used for Access to SNS.....	148
Table 5.17	Descriptive Statistics	149
Table 5.18	Skewness and Kurtosis Values of Variables.....	150
Table 5.19	Correlation Analysis	151
Table 5.20	One Way ANOVA Results for Willingness to Collective Action and Age Groups	163
Table 5.21	Independent Samples Test on Willingness to Collective Action and Gender.....	165
Table 5.22	ANOVA Results of Willingness to Collective Action and Education	166
Table 5.23	ANOVA Results of Willingness to Collective Action and Location	167
Table 5.24	One Way ANOVA Results of Willingness to Collective Action and Number of Years of membership in SNS	168
Table 5.25	One Way ANOVA Results of Willingness to collective Action and Frequency of Log-in.....	169
Table 5.26	One Way ANOVA Results of Willingness to Collective Action and Device Used for Accessing SNS	170
Table 6.1	Reliability Measures - Online	177
Table 6.2	Convergent Validity Measures - Online	179
Table 6.3	Discriminant Validity Measures - Online.....	180

Table 6.4	Fit Indices - Online	182
Table 6.5	Path Co-efficient and Significance of Relationship - Online.....	184
Table 6.6	R Square Co-efficient Results - Online	185
Table 6.7	Q Squared Co-efficient Results - Online	185
Table 6.8	Mediation Analysis (Bridging Social Capital): Path Co-Efficient.....	189
Table 6.9	Mediation Analysis (Bonding Social Capital): Path Co-Efficient.....	191
Table 6.10	Moderating (Extraversion) Paths and Path Co-Efficient	194
Table 6.11	Moderating (Agreeableness) Paths and Path Co-Efficient	197
Table 6.12	Moderating (Conscientiousness) Paths and Path Co-Efficient ...	199
Table 6.13	Reliability Measures - Offline.....	200
Table 6.14	Convergent Validity Measures - Offline	201
Table 6.15	Discriminant Validity Measures - Offline	202
Table 6.16	Fit Indices - Offline	203
Table 6.17	Path Co-efficient and Significance of Relationship - Offline	203
Table 6.18	R Square Co-efficient Results - Offline.....	204
Table 6.19	Q Squared Co-efficient Results - Offline	205

List of Figures

Figure 2.1 Social Capital in Relation to other Forms of Capital	35
Figure 3.1 Proposed Conceptual Model Linking Intensity of SNS Usage, Social Capital and Willingness to Collective Action.....	105
Figure 4.1 Facebook User Demographic in India	118
Figure 5.1 Age Profile of SNS Members	137
Figure 5.2 Age Profile of Club Members	137
Figure 5.3 Gender Profile of SNS members	138
Figure 5.4 Gender Profile of Club Members	138
Figure 6.1 Integrated Model - Online.....	186
Figure 6.2 Models Showing the Mediating Effect of Social Trust on the Relationship between Intensity of SNS Usage and Bridging Social Capital.....	189
Figure 6.3 Models Showing the Mediating Effect of Social Trust on the Relationship between Intensity of SNS Usage and Bonding Social Capital.....	190
Figure 6.4 Moderating Role of Extraversion	193
Figure 6.5 Plot of High and Low Levels of Extraversion	195
Figure 6.6 Moderating Role of Agreeableness	196
Figure 6.7 Plot of High and Low Levels of Agreeableness.....	197
Figure 6.8 Moderating Role of Conscientiousness	198
Figure 6.9 Plot of High and Low Levels of Conscientiousness.....	199
Figure 6.10 Integrated Model – Offline	205

Chapter 1

INTRODUCTION

<i>Contents</i>	1.1 <i>Introduction</i>
	1.2 <i>An Overview of Social Networking Sites</i>
	1.3 <i>Importance of Social Capital</i>
	1.4 <i>Social Media and Social Capital</i>
	1.5 <i>Chapter Schema</i>

This chapter presents a detailed introduction to the study. It further presents a short overview of the social networking sites, its history and discusses the growth and development of social networking sites in India. This chapter also intends to shed light on the importance of social capital and explains how social media is linked to social capital. Finally, it gives the structure of the report.

1.1 Introduction

The growth of web technology has gained worldwide attention and India has established its position in social networking site usage among the global players of internet usage especially in *Facebook* usage. Social networking sites have already entered the daily lives of Indians by positioning *Facebook* as the most popular SNS in India. Recent statistics on social media usage among Indians show that there are more than 153 million active social media users from India.

Social networking site (SNS) has the potential to fundamentally change the character of our social lives, both on an interpersonal and a community level. Changes in interaction patterns and social connections are already evident among young people, who are the heaviest users of these sites. As adoption spreads to a wider audience, it is expected that such changes to be amplified across all segments of society.

Social networking sites have changed the face to face interaction through web by allowing people to come together online and interact publicly or privately. Social networking site like *Facebook* is pervading all sectors of society, particularly among young people (Maeve Duggan, 2014). Social networking site (SNS) is becoming an increasingly popular resource for both students and adults, who use them to connect with and maintain relationships with a variety of ties. Many people use social media as a way to stay in contact, while others use the medium as a way to develop new connections.

Social media have become an 'important tool for managing relationships with a large and often heterogeneous network of people who provide social

support and serve as channels for useful information and other resources' (Steinfeld, 2012), and researchers have understood these media as being particularly useful for establishing and maintaining interpersonal relationships (Cliff Lampe, 2014). The fundamental motivation behind the use of social networking sites by members is the social capital i.e., interpersonal relationship creation or maintenance (Ellison, 2008; Williams, 2006). One of the main advantages of using social media especially social networking sites is that they allow members to develop or maintain relationships with individuals who may not be close to themselves geographically.

Social media offer opportunities for engagement and capital building across geographic boundaries, allowing for larger networks and, therefore, greater benefits. In the past five years, social networking sites have become integrated into the daily lives of millions of Indian users, mostly among those of young people, but usage is rapidly spreading to older and other groups. Social media has been linked to community building, collective action, and crisis recovery, on both individual and system levels (Doerfel & Chewing, 2010; Putnam, 1999). Because of the rise in the number of users of social networking sites, scholars and academicians give attention to the relationship between social networking sites and social capital.

It is also interesting to note that the use of social networking sites has changed the way people interact with others and develop relationships. We can see influence of social networking site usage on the behaviour of the individuals also. For example, the participation of individuals against social issues or collective action programmes with the introduction of social networking sites. In other way, one's participation and willingness to

participate in collective activities is much higher than the traditional ways when compared to social networking sites.

With the introduction of social networking sites, people can interact and discuss various social issues cost effectively and without any time constraints over social networking sites. Since activities with social networking sites are quite easier than the traditional sources of collective action, people can contribute to collective action activities easily by sharing, like and comment facilities on social networking sites. Hence, social networking sites are excellent platform for the members to initiate collective action among networking members to fight against a social issue. There is a notion that social media, especially social networking sites are simply used for entertainment purpose alone, but we can see that much serious works are also carrying on over the social networking sites now a days and it can be used as an excellent source for developing relationships i.e., social capital and thereby influence one's willingness to collective action.

Over the last few years, a large number of research has been conducted in social networking sites area and the scholars interested to know how social networking sites can impact the ways relationships in social networks are established, mediated, maintained, and how it impact the society. It should be noted that the technological advancements have changed the usage trends and patterns of social networking sites. Therefore, it is very important to investigate the social networking site usage among Indians and how it influence the interpersonal relationships of members and society as a whole.

1.2 An Overview of Social Networking Sites

1.2.1 Social Media

Social media refers to the activities, practices, and behaviour among communities of people who gather online to share information, knowledge, and opinions using conversational media (Safko & Brake, 2007). Social media can be defined as online applications, platforms and media which aim to facilitate interactions, collaborations and the sharing of content.

According to Andreas Kaplan & Micheal Haenleing, social media is defined as “a group of internet-based applications that build on the ideological and technological foundations of the Web2.0, which allows the creation and exchange of user generated content (Kaplan, Andreas M. & Michael Haenlein, 2010). Web 2.0 is considered as the platform for the evolution of social media and the term Web 2.0 was first used in 2004 to describe a new way in which software developers and end-users started to utilize the World Wide Web (Banerjee, 2013).

Social media is a group of new kinds of online media, which share the characteristics like participation, openness, conversation, community and connectedness (Mayfield, 2008). It is clear from all the definitions of social media that social media is a web based technology which meant for social interaction for the co-creation of value. Thus, social media can be defined as the media for social interaction, using highly accessible and scalable publishing techniques. And, social media users are commonly referred to as Generation C, where C stands for content creation, consumption and connectivity.

Earlier, internet application were limited to displaying information and generating little feedback to the users (Beer & Burrows, 2007), without

providing an opportunity to engage in long term conversations (Harwood, 2006). But with the introduction of social media and Web 2.0 based applications, the users can contribute to discussions, comment their views on the posts, and participate in online conversations (Beer & Burrows, 2007; Dearstyne, 2007). The various applications of social media include social networking sites, video sharing sites, blogs, message boards, virtual communities, massively multiplayer online games, and instant messaging (Bulik, 2008). Mayfield (2008) have identified seven basic forms of social media consist of social networks, blogs, wikis, podcasts, forums, content communities and micro-blogging. The term social media has intended to be used interchangeably with the term Web2.0, which can be identified by the following principal categories:

- *Blogs*: encompassing individuals' or enterprises' online journals often combined with audio or video podcasts.
- *Social Networking Sites*: Applications allowing users to build personal web sites accessible to other users for exchanging content.
- *Content Communities*: Web sites organizing and sharing particular types of content.
- *Forums*: Sites for exchanging ideas usually around special interests.
- *Content Aggregators*: Applications allowing users to fully customize the web content they wish to access.

Although different authors give different types of classification for social media, the most commonly used social media among Indians is social networking sites.

1.2.2 Social Networking Sites

An SNS refers to an online place where a user can create a profile and build a personal network that connects him/her to other users (Lenhart, 2007). Social networking is a practice of expanding the number of one's business and social contacts by making connections through individuals.

Social networking site is defined as “the web based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system” (Boyd, 2007).

SNS can be broadly defined as internet based social space designed to facilitate communication, collaboration, and content sharing across networks of contacts. It allow users to manage, build and represent their social network online. SNS provides the users with countless number of activities of which the most commonly uses are connecting with existing networks, making and developing friendship or contacts, creating an online presence for their users, viewing content or finding information, creating and customizing profiles and so on.

Social networking sites have quickly diffused around the world and it is deemed as an important revolution of the Internet after Google. SNS is the first application in which people can explicitly articulate their social networks. The numbers of SNS have dramatically increased in recent years. Among the rapidly growing list of SNS, *Facebook* is the global leader, catering to about 250 million registered users from around the world (Steinfeld, 2008).

According to Alexander (2006), social networking sites have changed the notion of the WWW (World Wide Web) from the page metaphor to a model predicted on micro content: content blocks that can be saved, summarized, addressed, copied, quoted, and build into new projects. The main objective or purpose of the social networking sites is to provide an interactive environment to communicate with peer and there by obtain useful information. SNS is used by various categories of people for varied purposes. For example to find useful information, to share opinion, engage in discussions, for entertainment, for socializing, for academic purposes, for communication (with family members and friends), playing games, for marketing and advertising and to build relationship etc.

Social networking sites themselves has implemented with a wide variety of technical features such as photo sharing, video uploading, messaging etc. The visible profiles of the members are considered as the backbone of social networking sites. The users can view not only their own profile but also view an articulate list of friends who also have account in the site. Taking a membership in social networking site is very easy task. The system will ask for some general information about the member such as age, gender, name, interests etc. After joining a social networking site, the users are allowed to invite other members to your friend's list. The users are prompted to identify others in the system with whom they have a relationship (Craig Ross, 2009). Most of the social networking sites are now asking the members to include profile photo. If the member wishes to upload his profile photo to his account, he can do it.

Various privacy settings are also arranged in these networking sites today. For example, in *Facebook* by default, users who are part of the same

network can view each other's profiles, unless a profile owner has decided to deny permission to those in their network. And MySpace allows users to choose whether they want their profile to be public or friends only. After creating a profile, participants are asked to invite their friends to the site by supplying their email addresses. Alternatively, they can look at others' profiles and add those people to their list of friends. Another important feature of social networking sites is the message facility. Most of the social networking sites provide its users the facility to leave messages on their friend's profiles and also to the public as a whole. Both private messages and comments are popular. Another feature of social networking sites is photo sharing and video sharing.

Online social networking sites can be used for a number of purposes, but three primary roles are considered to be as common to all the sites. First, online social networks are used to maintain and strengthen existing social ties, or make new social connections. Second, online social networks are used by each member to upload his or her own content. Third, online social networks are used to find new, interesting content by filtering, recommending, and organizing the content uploaded by users (Mislove, 2009). And it is interesting to note that the relational and psychological impact of social networking sites was the main focus in the field of social networking site studied conducted till today (Ephinston, 2011).

1.2.3 History of SNS

The first recognized social networking site, SixDegress.com was launched in the year 1997. This site allowed users to create personal profiles and link to friends. It lasted from 1997 to 2001. Another site called

Classmate.com was developed in 1995 which allowed users to affiliate with high school or college friends. At the time of launching, users were not allowed to make profiles or list the friends through this site, but this feature was enabled after few years.

The next major site Live Journal was launched in 1999. This allowed the users to maintain a blog, journal and diary. In Live Journal, users marks as friends to follow their journals. CyWorld, a Korean virtual site was started in 1999. After that in 2001 a site called Ryze was developed to leverage the professional network of the user's especially new entrepreneurs. In the year 2001, a number of communities developed tools in order to support combinations of profile along with the articulated friends. Asian Avenue, Black Planet, MiGente etc. are examples. These sites allowed users to create personal, professional and dating profiles and facilitated uses to identify friends in their personal profiles without their approvals. Another site Friendster was launched in 2002, which was designed to help friends of friends meet. In Asia, Friendster had more monthly unique visitors than any other social network.

From 2003 onward, there have been ample number of SNSs developed. The major revolution came with the launch of MySpace in 2003. It had different applications but the most important one was customization where the users can customize their own profiles by adding different themes. In July 2005, MySpace was purchased by News Corporations. In 2003, LinkedIn was launched. This site helps to make new connections between professional persons whether it is job seekers, employers, small business owners, big business owners etc. LinkedIn reached popularity in the year 2006.

In February 2004, a new SNS launched *Facebook* by Mark Zuckerberg. Newsfeed, messages, events, photos, friend list, application list, games list, groups, market place, movies application, links, notes etc. are the features of *Facebook*. By 2007 *Facebook* was reported to have more than 21 million registered members generating 1.6 billion page views each day (Needham & Company, 2007). The site is tightly integrated into the daily media practices of its users: The typical user spends about 20 minutes a day on the site, and two-thirds of users log in at least once a day (Cassidy, 2006; Needham & Company, 2007). Any one above the age of 13 was an eligible member of *Facebook*. *Facebook* launched a high school version in early September 2005. In 2006, the company introduced communities for commercial organizations; as of November 2006, almost 22,000 organizations had *Facebook* directories (Smith, 2006). In 2006, *Facebook* was used at over 2,000 United States colleges and was the seventh most popular site on the World Wide Web with respect to total page views (Cassidy, 2006). In India, the largest age group using *Facebook* is currently 18-24, and is graduates who are looking for a job or planning further studies, followed by the users in the age group of 25-34 (Shah, 2011).

Early on in *Facebook*'s history, access to the site was limited to university networks, and *Facebook*'s features facilitated interaction among more homogeneous groups of Friends. However, in subsequent years, *Facebook*'s user base has expanded, enabling users to create Friendship networks representing multiple aspects of their offline identities (such as professional contacts, family members, and non- university affiliated friends), rather than just their university connections.

Facebook gives its users an opportunity to create personalized profiles that include general information like education background, work background, and favourite interests. It also has an option to add specific applications to further personalize one's profile. Students can add links and song clips of their favourite bands, post messages on friends' pages, and post and tag pictures and videos, among other things. Through the site members connect with friends, colleagues, fellow students, and family members.

Facebook serves as a social lubricant, enabling individuals to share personal information and easily communicate with one another, thus supporting relational maintenance and feelings of closeness. Features such as status updates, comments, chat, and wall posts enable individuals to communicate with their network through both targeted and network-wide messages. Furthermore, the site simplifies the process of broadcasting requests for support to one's network and responding to other's request.

In 2006, another major social networking site was introduced, Twitter. Twitter is an online social networking service that enables the users to send and read short 140 character messages called tweets. Twitter is mainly used by celebrities to share their opinions with public.

Realizing the power of social networking, Google decided in 2011 to launch their own social network: Google+. It differed from *Facebook* and Twitter in that it wasn't necessarily a full featured networking site, but rather a social "layer" of the overall Google experience.

From the review of history of SNS, it is expected that there is still scope for innovation and competition in the realm of social networking and

new social networking sites will be introduced in future. Moreover, a number of social networking sites were introduced, *Facebook* is reported as the most popular social networking sites among Indians.

1.2.4 Growth and Development of SNS in India

The growth and development of social networking sites has been witnessed in almost every country. India has also marked its own place in the adoption of new media, i.e., social networking sites along with the traditional media. The usage trends of social media especially social networking sites among Indians also indicate that social networking sites usage form part and parcel of their day to day life.

With the liberalization and changes in the policies, technological advancement and innovations are evident among Indians also. Will Hodgman opinioned,

The social networking phenomenon continues to gain steam worldwide, and India represents one of the fastest growing markets at this moment; while there is certainly room for several players in the social networking space in India, the social networking sites have the right blend of both a strong brand and cultural relevance will be the best positioned for future growth.

The use of social media in rural India has grown 100 per cent in the past year with 25 million people using the Internet to access *Facebook* and Twitter account. Across India, there are 143 million users of social media. Urban areas witnessed a growth of 35 per cent with 118 million users as of April 2015. On the other hand, the number of rural India stood at 25 million,

up from close to 12 million last year, showing a growth of 100 per cent. *Facebook* emerged the leading social media website with 96 per cent of urban users accessing it, followed by Google Plus (61 per cent), Twitter (43 per cent) and LinkedIn (24 per cent). The largest segment of users was college-going students (34 per cent), followed by young men (27 per cent), the report said. Schoolchildren constitute 12 per cent (IAMAI-IMRB Report, 2015).

The mobile internet user base reached 306 million by December last year, and is expected to touch 371 million users by June 2016, a rise of 21 percent in six months. Urban mobile Internet users are expected to constitute about 71 per cent of this number, with 262 million users, while rural India is expected to have 109 million mobile internet users by June 2016. The report, "Mobile Internet in India 2015", found that the share of mobile Internet spend in the average monthly bill rose to 64 per cent last year from 54 per cent in 2014, while the average monthly bill fell nearly 18 per cent to about ₹ 360. "This change is attributed to the fact that the consumers are engaging more through the data for the connectivity purpose to minimize their money spent on voice," the report noted. Mobile Internet users in urban India in 2015 was 219 million, about 53 per cent of the urban population. Rural India recorded 87 million mobile Internet users, doubling from the number in 2014. "The rural has a large potential for mobile internet and the data consumption is poised to grow leaps and bounds," said the report. The purpose of accessing the Internet also varied in urban and rural India. The urban population mostly uses Internet for online communication, social networking, entertainment, online shopping and online ticketing. In rural India, 52 per cent users accessed the Internet for entertainment, 39 per cent

for social networking, 37 per cent for communication and only 1 per cent for online shopping (IAMAI Report, 2016).

Thus, India has incorporated the technological advancements in line with the developed countries and it is clearly evident from the above mentioned statistics that the adoption of social networking sites by Indians along with the traditional media. Social media symbolises the revolution in communication technology and it has brought much more than a mere media for communication. The researchers have also noted that SNS has turned to be a social phenomenon affecting every spheres of society along with the users or its members. Hence, it is very important to study the relationship building among Indians through social networking sites in order to understand the social networking sites phenomenon in a social context.

1.2.5 Social Networking Sites and Society

Social networking sites have brought many changes in the lives of individuals and society as a whole both at the micro as well as macro levels. With the introduction of social networking sites, the interaction and social patterns have changed now from offline to online context. The articulated social network feature of SNS offers the members to come together online and engage in discussions on social issues in the online forums.

Social networking sites have integrated into the daily lives of millions of Indian users and the recent statistics on social networking site usage among Indians also evident that Indian society is slowly and steadily heading towards a network societal structure. Earlier, the youngsters had only limited opportunities to meet together and take collective decisions, but this social system has changed now with the introduction of social media wherein the

social system is widely open and anyone can express their opinion through social media. And all have the equal opportunity to become more social and interactive virtually. Moreover, the individuals are using social media and social networking sites for initiating collective action against social issues.

Social networking sites are not simple sources of entertainment but are vital tools of communication and collaboration. Social networking sites indeed provide a visible stage in new ways and means that street protest and rallies cannot provide speakers and protestors. For instance, the significant role of social media in Gang Rape case in Delhi, in December, 2012 cannot be undermined. A lot of web pages related to social issues like rape, murder, girls education, corruption etc. are created on various social networking sites. Anna Hazare, effectively used the social media to mobilize the youth and other segments of society, in his agitation on the Jan Lokpal Bill. His effective use of social media not only made it more global, but also gained huge support in his campaign.

In the past few years, social networking sites have become part of the lives of millions of Indian users. SNS adoption is a global trend as indicated by social networking sites like QQ in China and CyWorld in South Korea. As researchers (For example, Ellison, 2009) in social media suggest to study social impacts of social media, it is believed to consider the social changes that might contribute while using social media. For example, social networking sites often help in social movements by providing simple, inexpensive ways to organize members, arrange meetings, and spread useful information at very less cost. These cost-effective coordination of activities finally end up with collective action. Turner Lee (2010) noted that online

exchanges and online interaction can inspire collective action as they bring the members of social networks to a common platform to discuss the public issues. And new media tools such as blogs, wikis, and social networking sites are becoming new arenas for social engagement as they build networks of similar interests and come together for a common cause. Thus, it is assumed that social media especially social networking sites can be used as an important tool for collective action.

1.3 Importance of Social Capital

The concept of social capital has made considerable headway in development policy debates and research and policy discussions, particularly within the last two decades. Now, social capital theory has been picked up in the field of development practice by many development agencies and national governments. The study of social capital has gained momentum in sociology and political science because of its assumed benefits for society as a whole. Social capital is important primarily for the success and well-being of individuals. People with large stock of social capital have more social resources that they can call upon in realizing their goals (Burt, 2001; Flap, 1999; Lin, 2001).

The following points discuss the importance of social capital:

- a) High social capital can be good for children's behaviour, development and educational success
- b) Areas with high social capital are cleaner, safer and friendlier
- c) People who are active in their community or belong to groups and clubs tend to enjoy better health

- d) High levels of trust and strong social networks can help to ease the effects of financial disadvantage and may even help to make us richer
- e) Organizations with high social capital have good knowledge sharing, low transaction costs, and low staff turnover
- f) But social capital can be a bad thing if it excludes certain people or groups (e.g. ‘old boys’ networks’, cartels) or supports bad behaviour (e.g. the Mafia, criminal gangs)

Putnam (1995) defined social capital as social relations or civic engagement through volunteering and showed that social capital had declined in the USA during the last few decades. Putnam (2000) continues by arguing that the internet may reverse the decline. Similarly, Lin (1999) stated that “we are witnessing a revolutionary rise of social capital, as represented by cyber-networks”. Internet users apparently have a somewhat larger social network than non-users (Jeffrey Boase, 2006).

The internet removes the ability to share and form relationship, making internet users less likely to be engaged in traditional, physical space that promote intimacy (Rusciano, 2001). However, researchers have argued against these claims, highlighting the role of internet use in increasing the interaction and interconnectedness of individuals within a community (Resnick, 2002). The scholars assert that the internet may actually remove barriers, such as distance and time, allowing for easier communication both within and across groups and communities. This ease of communication can directly influence the relationships needed to build and maintain social capital. *Facebook* and other SNSs provide an ideal platform for relationship

maintenance interactions to occur quickly, with multiple others, and with low transaction costs because they enable wide dissemination of messages and foster participation, feedback, and interaction through various communication channels (Tong & Walther, 2011).

The main source of depreciation for social capital is when people move to another city or quit an organization. Geographic mobility tends to weaken social ties with friends, neighbours or colleagues. The internet can limit this depreciation by facilitating contacts with geographically dispersed friends or acquaintances. And the internet makes it possible to maintain strong and weak ties across long distances (Wellman, 2001; Cummings, 2006). Online social network sites, because of their focus on the relationship formation and maintenance, have been extensively studied through the lens of social capital (Steinfeld, 2012). The available research on social networking site usage suggested that the provision of the actual identity information and the information disclosures on social networking sites are key to their successful functioning, facilitating relationship initiation, development, and maintenance (Steinfeld, 2012).

The production of social capital was negatively related with the use of the Internet for recreation, e.g., chat rooms or games, but positively related with the use of the Internet for information exchange, such as searching or emailing. This finding is in part in accordance with the result reported by Beaudoin & Tao (2007) where asynchronous online communication, including e-mail and discussion groups, developed social support among cancer patients, resulting in positive health outcomes.

Thus, in a globalized and technologically networked society, we can re-conceptualize social capital in terms of the networks created and maintained through a combination of online and offline networks. Zhong (2011) made a distinction between online social capital and offline social capital: online social capital is created through computer-mediated communication, whereas offline social capital is based on face to face communication. For the study purpose, social networks are classified into two categories i.e. online social network (*Facebook*) and Offline social network (Clubs/Association). *Facebook* is appropriate for this study due to its global spread and also it is the most popular SNS in India. Researchers suggest that broad use of the internet didn't increase social capital, suggesting that only certain types of online activities such as *Facebook* use influence social capital levels. While social capital can be explored from various angles, the focus here was on measuring bridging, bonding and cognitive social capital as created by social networking members (both online and offline social networking members) and how these types of social capital is related to one's willingness to collective action among members.

1.4 Social Media and Social Capital

The usage trends of social networking sites especially among youngsters show an increase in addiction to social networking sites day by day. This trend is visible in the way relationships are now perceived by individuals. Our society is now moving from face to face relationship to online relationships. In this context, social capital has been studied in many kinds of virtual communities, such as virtual learning communities (Daniel, 2003) and social networking sites (Ellison, 2007). Blanchard & Horan (2016) divide virtual communities into those that are created around or in

an existing physical community and those that are created on the basis of the shared interests of the members. The boundaries that have separated the real and virtual worlds are fading and the social actors move more and more within and among different domains, converting forms of capital into one another (Malaby, 2006). In a study by Law & Chang (2008) they identified four technology-based social capital builders in public online communities. These were identity profiling, sub-community building, feedback mechanisms and regulatory practices. These artefacts facilitated the formation of social capital, which in turn motivated knowledge contribution in the online communities. According to Blanchard & Horan (2016) social capital can increase in virtual communities that are based on existing physical communities.

In the age of the Internet, social media genres, such as blogs, social networking sites and forums, have become a popular venue for people to gather, emerging a new form of social capital – digital social capital. This concept has attracted considerable attention, such as investigations into the impact of the new media for the production of social capital (Beaudoin & Tao, 2007; Shah, Kwak, & Holbert 2001; Wellman, 2001).

A review of academic literature revealed that so far no attempt has been made to explore the SNS usage and social capital perspective in a developing country context. Similarly, studies on the motivations for joining or using SNS and outcomes of using SNS have largely over looked the area as a potential researchable one. This is an important research area because the number of users of SNS are increasing day by day. The outcomes of this study of SNS among members might be interesting in the context of SNS usage to social capital relationship. Therefore, a study of SNS usage or the

role of SNS in social capital development among the members is important for a close understanding of social capital concept and thereby use it as an important tool for policy researchers and academicians.

1.5 Chapter Schema

The present research study attempts to explain the relationship between intensity of social networking site usage and social capital (bridging social capital, bonding social capital, and cognitive social capital) and social trust and check for its influence on one's willingness to collective action. Integrated models linking intensity of participation in social network (both online and offline context) and social capital and willingness to collective action are proposed and statistically tested.

The work is presented in seven chapters as follows:

Chapter 1: This chapter details the introduction to the study.

Chapter 2: This chapter is a review of literature on the concept of social capital, sociological approaches to social capital, dimensions of social capital, and predictors of social capital and outcomes of social capital such as willingness to collective action is presented. Existing research models linking the constructs are analyzed. Observations from the literature review and motivations for the present study are also discussed here.

Chapter 3: This chapter explains the theoretical framework of the study. This chapter explains the theoretical background of the study and then presents the hypothesized relationship between variables under the study.

Chapter 4: This chapter explains the various aspects of the research methodology. The initial part of the chapter presents rationale or background of the study, objectives of the research, conceptual models, hypotheses to be tested, variables under the study, scope of the study and sampling design etc. The exploratory factor analysis of the variables under the study and pilot study results are also discussed in this chapter.

Chapter 5: This chapter builds on the discussion of the profile of the final sample collected. The chapter also explains the relationship between variables under the study. The hypotheses stated in Chapter 4 are tested and the results are presented here.

Chapter 6: This chapter explores the basic model showing the relationship among independent variable (intensity of SNS usage/intensity of participation in Clubs & Association), mediating variable (social capital) and dependent variable (willingness to collective action) of the study. The chapter also discusses the PLS SEM technique to validate the hypothesized models.

Chapter 7: This is the last chapter which presents the summary of the results and findings of the research. The relevance of the research for practice is discussed. The limitations of this research work and scope for further research are also presented here.



Chapter 2

LITERATURE REVIEW

Contents

- 2.1 *Concept of Social Capital*
- 2.2 *Sociological Approaches to Social Capital*
- 2.3 *Social Capital in Relation to other Forms of Capital*
- 2.4 *Types of Social Capital*
- 2.5 *Measurement of Social Capital*
- 2.6 *Social Capital and its Predictors*
- 2.7 *Outcomes of Social Capital*
- 2.8 *Collective Action*
- 2.9 *Personality Variables*
- 2.10 *Gaps in the Literature*
- 2.11 *Chapter Summary*

This chapter gives a detailed literature review covering the variables under the study. The chapter begins with the concept of social capital and then presents sociological approaches to social capital, types of social capital and its measurement and previous research on predictors and outcomes of social capital. Gaps in the literature are discussed and motivation for the present study is explained. At the end of this chapter, the summary and conclusion of literature is provided.

2.1 Concept of Social Capital

Social capital refers to connections within and between social networks. It allows a person to draw resources from other members of networks to which he or she belongs. The term social capital initially appeared in community studies, highlighting the central importance for the survival and functioning of city neighborhood networks of strong, cross-cutting personal relationships developed over time that provide the basis of trust, co-operation and collective action in such communities (Jacobs, 1963). Although the concept of social capital is old and widely used in various disciplines, the term remained unfamiliar to scholars and researchers in late 1970s and from 1995 onwards, there has been an explosion in research on the topic ‘social capital’ across a wide range of academic disciplines.

Social capital’s intellectual history has deep and diverse roots which can be traced to the eighteenth and nineteenth centuries (Adam & Roncevic, 2003). The concept of social capital has travelled a long way since its original inception by Hanifan (1920). The first known use of the term social capital was associated with L.J. Hanifan, a state supervisor of rural schools in West Virginia. The term social capital can be traced at least as far back as 1920, with the publication of Lyda Judson Hanifan’s *The Community Centre* (cited in Feldman & Assaf, 1999). Hanifan (1916) states that “in the use of the phrase of social capital I make no reference to the usual acceptation of the term capital, except in a figurative sense. I don’t refer to real estate, or to personal property or to cash, but rather to that in life which tends to make these tangible substances count for most in the daily lives of a people, namely, goodwill, fellowship, mutual sympathy and social intercourse among a group of individuals and families who make up a social unit. After

Judson Hanifan, the social capital concept was reintroduced by Jane Jacobs in 1960s in her researches on urban planning, and by Glenn Loury in 1970s in his works on neoclassic theories of racial income differences (Portes, 1998). Jacobs considers that these networks were absolutely necessary as the trust element in them strengthened local social cohesion, and that accordingly these networks should be maintained since they formed an irreplaceable part of the SC of each city neighbourhood (Jacobs, 1961).

The concept has also established as a means of enhancing overall quality and effectiveness especially in community action. Many organizations like World Bank have designed practical constructs to make the collective action possible through social capital development. World Bank has developed a Social Capital Implementation Framework (SCIF) to know how social capital could be made use of in operations. The idea of social capital derives from two sources. Firstly, it focuses on the positive aspects of the human inter-relationships and put aside their less attractive aspects. Secondly, it places these positive consequences in the broader framework of capital, and focuses on the non-monetary capital as a source of power and influence (Pope, 2003).

However, as Keeley (2007) noted that there is not a universal or single definition of social capital that would satisfy all the social capital theorists, meaning that there are many definitions which all contribute something to the whole. The concept gained widespread recognition with the writings of Bourdieu (1986), Coleman (1988) and Putnam (1993), who are considered the contemporary authors on social capital. Thus, the conceptualization of social capital by these authors need to be discussed in order to get a clear

picture of social capital concept. The next section discusses different sociological approaches to social capital so that different conceptualization of the term social capital by different authors can be understood clearly.

2.2 Sociological Approaches to Social Capital

Social capital is one of the most studied concepts today. It includes different and even opposing conceptualizations and applications. Social capital simply means the relation between people in which they enter into to have potential to form benefit out of it as the potential for social capital to make a positive contribution to various outcomes in different areas such as health, community welfare and safety, education, collective action etc. are established by the researchers and policy makers. The definition of social capital has evolved through a series of conceptual frameworks. A sizeable literature has sprung up around social capital and related issues following the popularization of the term by sociologist James Coleman in 1988, and the study of voluntary associations in Italy by Robert Putnam in the early 1990's. The conceptualization of social capital can be very well explained with the contribution of contemporary authors in it like Putnam, Bourdieu, Coleman, Burt and Portes.

2.2.1 Robert D Putnam

Robert Putnam is considered to be one of the pioneering researchers in the field of social capital. He is perceived as the popular public face of 'Social Capital Theory'. Putnam's article "Bowling Alone: America's Declining Social Capital" was published in the Journal of Democracy in 1995, which raised the author to fame. The article got reviewed by higher officials and policy makers of North America and with the recommendations

made by them later on Putnam published a research book based on this titled “Bowling Alone” which was discussed on numerous venues across North America and Europe.

Putnam (1993) defined social capital as *“features of social organization, such as trust, norms, and networks.”* According to Putnam, social capital is productive and by having access to social capital, specific achievements are possible, that wouldn’t be possible otherwise. His major focus was on the positive effects of social capital and its influence on democracy, economy, health and security. As Glaeser, Laibson & Sacerdote (2002) cited “Putnam jump-started the research as social capital where he found a strong correlation between measures of civic engagement and government quality across the regions in Italy.”

2.2.2 Bourdieu

Pierre Bourdieu (1930-2002) a French sociologist explained social capital in terms of cultural capital. The first systematic contemporary analysis of social capital was produced by Pierre Bourdieu. Bourdieu presented capital under three fundamental species such as economic capital, cultural capital and social capital. Bourdieu (1992) defined social capital *“as the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more less institutionalized relationship of mutual acquaintance and recognition”*. Bourdieu used the concept of social capital to explain the social inequality prevailed in our society. Social capital theory suggests that there are some abilities and values rooted in social networks and relationships that create certain types of benefits, both instrumental and emotional, for people to use,

which depend on whom one knows and how well one understands one's social relationships (Bourdieu 1986; Portes 1998).

2.2.3 James Coleman

James Coleman (1926-1995) an eminent American sociologist who sought to combine the theories relating to sociology and economics so as to see social capital as a way of making sense of the rational and individualistic models of traditional economics. Coleman considered social capital as a stock held by all kinds of communities. He assumes social capital as an important resource for individuals which may affect their ability to act and their perceived quality of life. Coleman defined social capital as “the set of resources that inhere in family relations and in community social organizations and that are useful for the cognitive or social development of a young child or young person” (Coleman, 1988). James Coleman was the first person to develop a theoretical framework for the concept of social capital. He proposed a model linking social capital to other forms of social capital wherein he presented social capital as one of the potential resources which an actor can use, alongside other resources such as their own skills and expertise (human capital), tools (physical capital), or money (economic capital).

Coleman uses the term social capital to refer to all human relationships. His concept of social capital includes: obligations, expectations, and trustworthiness of structures; information channels; and norms and effective sanctions. Social capital is a person's or group's sympathetic relationship with another person or group that may produce a potential benefit, advantage, and preferential treatment for another person or group of persons beyond that which might be expected in an exchange relationship.

2.2.4 Portes and Lin

Portes (1998) is among the first researchers to present a structural, network-oriented perspective of social capital, highlighting social networks as a core concept of social capital. He defined social capital as the ability of actors to secure benefits by virtue of membership in social networks or other social structures. Portes (1998) compared Bourdieu and Coleman and found some similarities “both Bourdieu and Coleman emphasize the intangible character of social capital relative to other forms whereas economic capital is in people’s bank account and human capital is inside their heads, Social capital inheres in the structure of their relationships. To possess social capital, a person must be related to other, and it is those others, not himself, who are the actual source of his or her advantage”. Portes has also pointed out the down side of social capital.

Nan Lin (2002; 1999) further conceptualizes social capital as a structural concept and focuses on the structure of social ties between individuals. Lin’s concept represents a formalized theory of social capital including axioms and theorems. He defines social capital as an “investment in social relations with expected returns in the market place”. In order to produce profits, individuals mutually network and interact. The social ties between people facilitate the flow of information, and some social ties carry more valued information than others. This means that in an imperfect market situation social ties can provide opportunities and choices to individuals that are otherwise unavailable. Social ties also serve as an individual’s social credentials: they reflect the individual’s accessibility to resources through social networks and relations. Moreover, according to Lin, social ties are a reinforcement of an individual’s membership to a social

group. According to Lin's theory of social capital, the social capital can be mobilised in two categories of actions: instrumental actions, and expressive actions. Instrumental actions are aimed to obtain resources initially not owned by an individual, such as finding a house, a job, material wealth, and status attainment in general. Expressive actions are aimed at the maintenance, consolidation, and defense against possible loss of resources already owned; returns from such actions are example the reception of personal support, and sharing of sentiments (Lin, 2001).

2.2.5 Burt

Ronald Burt conceptualizes social capital in the structural theory of action (1995; 2000): a person's goal is to maximize their utility while having their own set of resources at hand. The position of an actor in social structure determines the calculation of his utility and models his interest. According to Burt (1992) social capital is the friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital. Burt's view is similar to Lin's, he believes that the social capital of an actor is expressed by his relationships.

According to Webber (2008), there have been two streams of development of the concept: neo-capital and communitarian theories of social capital. Neo-capitalists (e.g. Portes, 1998; Bourdieu, 1986; Burt, 2001) are concerned with the relative position of a person within a network, that is, how the position of a person might bring those benefits in relation to the rest of the members of the network. This approach allows us to determine how the relationships we form are able to mobilize resources or, as Bourdieu would prefer, how much 'capital' we can acquire through our social connections.

From the sociological approaches discussed above, it is clear that social capital has conceptualized at individual level and at collective/group level. The group level social capital is the social capital taken as a collectively produced and owned entity, and the benefits of which are enjoyed by the whole community. Authors like Coleman and Putnam conceptualized social capital at group level whereas scholars like Bourdieu and Lin concentrated on individual level social capital. Individual social capital is the collection of resources owned by the members of an individual's personal social network, which may become available to the individual as a result of the history of relationships.

2.3 Social Capital in Relation to other Forms of Capital

Social capital is the potential set of resources accessible through social relation (Grootaert & Van Bastelaer, 2002). The resources comprise those of the social form, as well as the physical and financial forms, and the various forms of capital are convertible to each other (Krishna & Uphoff, 2002). Considerably, social capital is a form of capital, which can transform itself in various ways to meet people's needs (Fuchs, 2001). This differentiates it from other resources that do not function to regenerate resources or capital (Siisiainen, 2003). As such, social capital, like other forms of capital, has a property of being instrumental to the capital holder in facilitating production and transformation of resources and capital. The result of production and capital accumulation, regeneration, and transformation would provide the fuel for the advancement of quality of life (Cross & Lin, 2008; Putnam, 2000). Social capital is similar to other forms of capital in that it can be invested with the expectation of future returns (Adler & Kwon, 2000), is appropriable (Coleman, 1988), is convertible (Bourdieu, 1986), and requires maintenance

(Gant, 2002). Social capital is different from other forms of capital in that it resides in social relationships whereas other forms of capital can reside in the individual (Robison, 2002). Further, social capital cannot be traded by individuals on an open market like other forms of capital, but is instead embedded within a group (Gant, 2002; Glaeser, 2002).

Coleman (1988) and Burt (1992) who note that individuals can acquire at least four kinds of capital: financial capital (money), physical capital (physical property such as land, buildings, machinery), human capital (one's knowledge, skills, and abilities), and social capital (one's beneficial relationships with others). Social capital can be combined with other forms of capital to affect different system-level behaviour and different outcomes for individuals. Coleman (1988) noted that, "unlike other forms of capital, social capital inheres in the structure of relations between actors and among actors. Just as financial capital can afford the use of technology and labor in production and capital accumulation, social capital hinges on helpful social relations to enable the acquisition of information, resources, and other forms of capital in productive work and the regeneration of capital (Flap, 1999; Krishna & Uphoff, 2002).

Traditionally, economic capital (both financial and physical capital) has gained wide attention. But in today's competitive world, the importance of intangible capital such as intellectual capital or positive psychological capital has also been recognized. Positive psychological capital basically consists of "who you are" and it is referred using positive psychological capacities such as confidence, hope, optimism, and resilience (Luthans, 2004). The figure 2.1 shows the relationship between social capital and

other forms of capital such as financial capital, physical capital, human capital, social capital and positive psychological capital. In figure, earlier, more importance were given for economic capital, later it has changed to human capital and social capital and now positive psychological capital is gaining importance. With human capital now making an important contribution to competitive advantage for today's organizations, the time has come to refine and advance social capital and positive psychological capital.

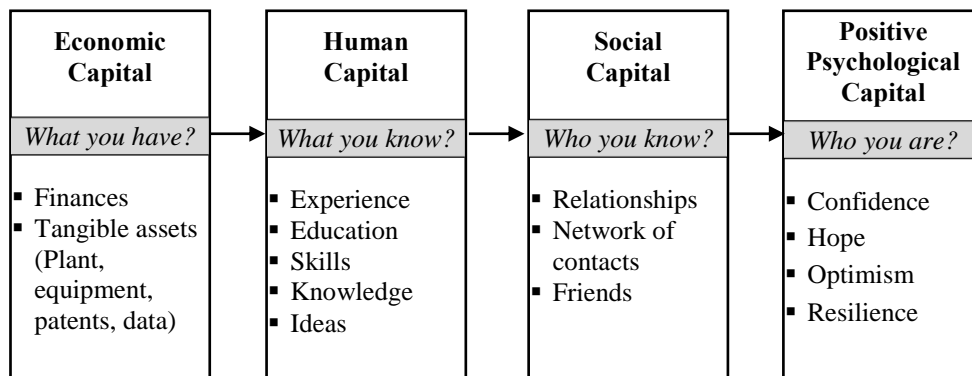


Fig. 2.1: Social Capital in Relation with other Forms of Capital

2.4 Types of Social Capital

As mentioned earlier, social capital has been conceptualized differently by researchers and as a result, scholars have classified social capital into different types based on the context of the study. The following are the major classification of the types of social capital discussed in the literature on social capital.

2.4.1 Network Perspective

As per network perspective, social capital can be of three types; bonding social capital, bridging social capital and linking social capital. The bridging social capital takes place when actors from different backgrounds make connections among different social network structures. And the bonding social capital can be found among individuals who develop tightly-knit and emotionally close relationships providing substantive support for one another, such as family and close friends (Putnam, 2000; Williams, 2006). Maintained social capital or linking social capital was introduced by Ellison, Steinfield & Lampe (2006). It refers to the social capital associated with acquaintances from a previously inhabited community such as high school. According to Woolcock (2002), “bonding social capital refers to connections to people like you (family, relatives, kinship), bridging social capital refers to connections to people who are not like you in some demographic sense,” and “linking social capital pertains to connections with people in power, whether they are in politically or financially influential positions.”

2.4.1.1 Bridging Social Capital

According to Woolcock & Sweetser (2001), “bridging social capital refers to connections to people who are not like you in some demographic sense;” and according to Field, it “tends to bring together people across diverse social divisions” (Field, 2003). Bridging social capital exist in the ties that link otherwise separate, often heterogeneous, groups. For example, individuals with ties to other groups, messengers, or more generically the notion of brokers. When seeking jobs or political allies, bridging social capital is better than bonding social capital.

Social capital can be a bridge when it links people with different interests and views – such as people in associations, trade unions, or fellowships or from different age, ethnic, or income groups. Bridging social capital may broaden social horizons or world views, or open up opportunities for information or new resources. Bridging social capital is linked to “weak-ties” (Granovetter, 1982), loose connections who may provide useful information or new perspectives for one another, but typically not emotional support.

Bridging social capital is based on what Burt (2001) calls “brokerage opportunities”, for parties that can fill missing or weak links in a network called structural holes. Structural holes create opportunities for social capital on both the individual and network level, in that parties that fill the holes, and connect otherwise unconnected networks, control the flow of information and resources between the formerly unconnected structures. Therefore, these parties hold power and have access to diverse resources. Additionally, connecting formerly unconnected networks can lead to access of more diverse, non-redundant, and even more plentiful resources.

Bridging social capital involves the relationship we have with work colleagues and contacts, acquaintances and friends of friends. Researchers measured bridging social capital with measures like outward looking, contact with a broader range of people, a view of oneself as part of a broader group and diffuse reciprocity with a broader community (Wellman, 2001).

Bridging social capital tends to bring together people across diverse social division and it suggests that social capital is a resource inherent in a social network which provides a link between the members of network.

Moreover, bridging ties are often viewed as valuable because they allow individual access to novel information which typically resides outside an individual's team or regular work group. Bridging social capital are better for linking assets and groups. And it is important to note that the degree to which people are willing to step out of their closed social circle and build bridging social capital depends on the benefit they derive from the relationship. For example, Burt (1992) highlights the opportunities and benefits arising from bridging effects between relationships in the network, which are characterized by weak ties. It is argued that individuals who are embedded in bridging networks are more likely to find participation opportunities because weak ties have non-redundant sources of information, offer more knowledge on public issues and tend to bring more mobilizing chances. Furthermore, communities that have high bridging social capital aims at mobilizing the collective abilities to raise their demands or to undertake coordinated or collective action and thereby improve local services. Bridging social capital is generally regarded as potentially beneficial to community and regional development (Woolcock, 1998). Thus, bridging social capital can be used as a tool to improve one's willingness to collective action.

Ellison (2007) indicates that *Facebook* has more impact on bridging than on bonding social capital. Steinfield (2008) investigated the relationship between *Facebook* usage, psychological well-being and bridging social capital and found out that self-esteem moderates the relationship between *Facebook* usage and bridging social capital in such a way that lower the self-esteem, the more will be the *Facebook* usage in terms of bridging social capital. Thus, bridging social capital connects individual homogenous

subgroups and allows members of a group to access social resources outside the group. Since, bridging social capital is formed through network participation and social interaction in network groups, it may well arise as a by-product of social interaction that is initiated for different reasons.

2.4.1.2 Bonding Social Capital

Bonding social capital refers to relations amongst relatively homogenous groups such as family members and close friends. This form of social capital serves to tie actors more closely together by creating a strong identity. Some examples could be Boy Scouts and Girl Guides, and military service (Putnam, 2000). Direct reciprocity is most important in bonding social capital to maintain healthy relationships. Strong bonding social capital may effectively exclude individuals because they do not share the same values or norms. This has the potential to create negative consequences for the wider community, particularly if the views are opposed to those accepted by others (Lin, 2001; Putnam, 2000).

Social capital can be a bond between people: a common identity, purpose or tie that connects similar people, such as members of the same family, ethnic group, club or community organisation, or neighbours. Bonding social capital reflects the strong ties with family and close friends, who might be in a position to provide emotional support or access to scarce resources. The bonding social capital measures are emotional support, access to scarce or limited resources, ability to mobilize solidarity and out group antagonism (Wellman, 2001). Bonding social capital exists in the strong ties that exist within, often homogeneous, groups i.e., families, friendship circles, work teams, choirs, criminal gangs, and bowling clubs for example.

Ellison (2007) found that the bonding social capital within *Facebook* emerged as a way of maintaining and strengthening past relationships and ties that already exist. Burke, Marlow & Lento (2010) found out that intensive *Facebook* usage relates to bonding social capital. They have also added that users who posted often and engaged in directed communication with friends reported higher bonding social capital. Bonding social capital is good for reciprocity and mobilizing solidarity within a group.

Adler & Kwon (2002) state internal relations as bonding social capital and external relations as bridging social capital. Such diverse networks of ten yield new information and resources, known as the ‘strength of weak ties’ argument (Granovetter, 1973). Bonding social capital as strong ties tend to be strong and exclusive, creating social solidarity (Putnam, 1993). According to Ellison (2007), the relationships between the usage levels of *Facebook* users personally can be perceived in terms of bridging social capital and bonding social capital, showing that individuals on *Facebook* utilize bridging social capital more than bonding social capital. In an aging society, bridging social capital suggests the integration of linkages between heterogeneous individuals (Collom, 2008). With regard to MySpace, while bonding social capital describes seniors' close relationships in which emotional support is exchanged with very close friends or family members, bridging social capital describes seniors' heterogeneous relationships (Pfeil, 2009).

2.4.2 Social Structure Perspective

According to several authors social capital integrates three dimensions, namely Structural social capital, relational social capital and cognitive social

capital (Nahapiet & Ghoshal, 1998; Tsai, 1998). Nahapiet & Ghoshal (1998) define social capital as “The sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit”.

2.4.2.1 Structural Social Capital

The structural dimension of social capital refers to the extent to which people in an organization are connected and access to the intellectual capital of others; it captures the existing relationships that offer the opportunity for acquiring resources or acting together. The structural dimension of social capital is related with whom and in what frequency people in an organization share information and resources (Coleman, 1990; Moran, 2005). And this network helps an individual to reduce the amount of time and investment required to gather information, increase information and resources transfer and also increase the inter-unit interaction among the members of the organization.

The structural dimension of social capital refers to the overall pattern of connections and interactions between individuals, and is characterized by the number and strength of the existing network ties between individuals and by the network’s configuration (Burt, 1992; Nahapiet & Ghoshal, 1998). The social network literature addresses two types of social ties, namely expressive and instrumental network ties, as part of the structural dimension of social capital (Ibarra & Andrews, 1993). Expressive network ties are ties that provide friendship, emotional, and social support (Granovetter, 1973; Ibarra & Andrews, 1993). They are intimate links connecting people who share personal characteristics (Marsden, 1988), and

tend to involve frequent interactions between individuals (Granovetter, 1973; Krackhardt, 1993). Expressive network ties are symmetrical (reciprocal) and tend to cluster in dense interconnected cliques that carry the potential for conformity, persuasion and influence (Ibarra & Andrews, 1993) and provide affective support. Instrumental network ties, in contrast, are weaker and asymmetrical (non-reciprocal) and can casually arise in a work environment, for example, by linking people with different personal characteristics (Ibarra & Andrews, 1993). These types of ties tend to be well suited for the access of information and resources. They are further-more known for their search benefits, including the facilitation of advice seeking (Granovetter, 1973; Hansen, 1999). Using social media to explicitly create and maintain social relations either directly, for example through social networking tools, or indirectly, for example through communities of interest, can positively impact structural social capital (Yan Yu, 2013). The components of structural social capital include bridging ties, bonding ties. Bridging ties refer to external ties which span gaps between disconnected people. Bonding ties refer to within-group ties which connect group members by strong, positive, multiplex, and reciprocated relationship ties (Oh, 2006).

Social capital has been conceptualized in terms of two different structures: bonding and bridging. Individual social capital theory regards participation in voluntary associations as a means for realization of individual goals, e.g. an investment in social relations with expected returns in the marketplace (Lin, 2001). Which types of network characteristics are related to participation in voluntary associations also tells us to what extent voluntary associations are places where individuals produce community or advance their careers.

2.4.2.2 Cognitive Social Capital

Cognitive social capital refers to the extent to which employees share a common perspective and understanding of how to interact with one another. When individuals share collective goals and have the same perceptions of how to interact with others, which will generate more opportunities to exchange knowledge and resources (Tsai, 1998). The cognitive social capital assesses the ability of individuals to act together (Nahapiet & Ghoshal, 1998). The cognitive dimension of social capital reflects a shared context and common understanding that facilitates interactions among parties. It refers to resources that provide shared representations, interpretations, and systems of meaning among parties, and consists of shared codes, language and narratives (Nahapiet & Ghoshal, 1998). Some studies have represented the spirit of this dimension as a group's common context and understanding, and measured a groups' shared vision (e.g. Tsai, 1998), shared culture (e.g. Inkpen & Tsang, 2005), shared language (Chiu, 2006), and shared knowledge (e.g. Levin & Cross, 2004). When compares with other types of social capital, the cognitive social capital has received the least amount of scholarly attention in the workplace context, perhaps due to a lack of consensus on its definition and measurement (Nahapiet & Ghoshal, 1998; Zheng, 2010). But the most widely used definition for cognitive social capital is given by Hinds (2005), where the cognitive social capital is the shared context and vision of which have an emergent state that develops in a team when its "members have access to the same information and share the same tools, work processes and work cultures".

2.4.2.3 Relational Social Capital

The relational social capital focuses on the nature and quality of relationships between team members, and consists of trust, obligations, team norms and team identification (Nahapiet & Ghoshal, 1998). The relational social capital on the other hand leads with the nature and quality of the connections among the employees and it includes the motivation of members to interact and act collaboratively. It reflects how relationships understood as a history of interactions (Granovetter, 1982), are characterized by trust, reciprocity and emotional intensity (Moran, 2005).

2.4.3 Strong Ties vs. Weak Ties

Tie strength, a concept ranging from weak ties at one extreme to strong ties at the other, represents the extent and frequency of the interaction and the closeness between ego user and other online SNS members (Granovetter, 1973; Levin & Cross, 2004). Strong ties characterize the closeness and frequent interaction of a relationship between two users in an online SNS, and plays the salient role of facilitating the knowledge sharing (Levin & Cross, 2004) and effective communication (Reagans, 2003). While weak ties characterize distant and infrequent relationships, and is more likely to be the source of novel information or new ideas (Granovetter 1973; Levin & Cross 2004).

Granovetter (1973) popularized the term weak ties among internet users. Weak ties refer to the connections between individuals who do not know one another well and are characterized by infrequent contact and a casual, low intensity relation. Weak ties are loose connections between individuals which may provide useful information or new perspectives for

one another. And the strong ties refer to the strong connections between individuals; usually emotionally close relationships such as family and close friends. Weak acquaintanceships, rather than the strong friendships, lead to the most job opportunities. Granovetter (1973) in his article “*Strength of Weak Ties*” suggested that weak ties were an important resource in cultivating mobility opportunities.

Individuals interact and network with others in order to obtain benefits (Putnam, 2000). The way individuals interact and network with others can be categorized into two major types according to the strength of the connections: strong and weak (Granovetter, 1973). Strongly-connected social networks, which feature a greater amount of time, more emotional intensity, higher intimacy and mutual reciprocity, such as close friends and families, produce bonding social capital (Putnam, 2000). In contrast, weakly-connected social networks, which feature lower amounts of time, less emotional intensity, lower intimacy and less mutual reciprocity, such as acquaintances, produce bridging social capital.

2.5 Measurement of Social Capital

Despite being described as an empirically elusive concept, social capital has attracted much policy and academic interest. However, little is known about social capital in practice, since measurement of the concept remains an emerging field. Generally, the multi-dimensionality of social capital has been widely reflected in the literature in terms of the way it is measured. A number of proxies such as trust, volunteerism, public engagement and participation in local communities are often used to determine social capital on a global level for communities, groups and

countries. When the researchers started to measure online social capital, a large number of them focused on the question whether Computer Mediated Communication (CMC) enhances, diminishes or supplements social capital in the offline world (Wellman, 2001).

Williams (2006) argues that social capital may be formed differently online than offline. Williams also developed and validated scales specifically for measuring online social capital. Among the first articles that actually focused on measuring online social capital, Williams (2006) was the first to look for a survey based measure for bonding and bridging social capital. Building upon William's work, Ellison (2006, 2007, 2009 & 2011) have been consistently working on providing a better questionnaire based metrics of bonding and bridging social capital.

Costa & Kahn (2003) measured social capital using community characteristics, which affect group participation. They claimed that social capital promoted group loyalty among Union Army soldiers during the American Civil War. Soldiers in a more homogeneous company in terms of age, occupation or ethnicity were less likely to desert. Similarly, in a study of US cities, Alesina, Alberto, & Eliana La Ferrara (2000) found that more heterogeneous communities had lower levels of social activities. The effects were stronger for groups that require direct contact among members, such as churches and youth clubs.

A common approach for measuring social capital focuses on structural social capital and examines the emerging bridging and bonding ties (Burt, 1997; Putnam, 2000). For example, Ellison (2007) developed a framework to study the relationship between *Facebook* use and bridging and bonding

social capital. In the context of social networking sites, Koroleva (2011) provide a more detailed view of social capital by focusing on the unique benefits it carries. However, Kwon & Adler (2014) highlighted that there is value in understanding both relations and cognition that go beyond the structural dimension. In line with this, Huang (2011) measured cognitive social capital as the relationship characterized by shared vision or values among networking members in *Facebook* context. Social capital also operates through psychological and biological processes to improve individual's lives. Recently, researchers assessed the psychometric properties of social capital in a work environment in which self-rated health, depression, hypertension and mortality have related with one's social capital.

The literature on measurement of social capital indicates that the development of measurement tools for understanding social capital is a process which is in its early stages and only with rigorous development and testing of theoretically informed measures and approaches of analysis will social capital measurement advance over time. On the other hand, social capital theory suggests that we can expect different types of relationships to operate among different network types. Hence, the measurement of social capital could be on the basis of network characteristics such as bridging social capital, bonding social capital and cognitive social capital. However, social capital measurement remains an emerging field, in which it is important to test and validate numerous approaches to measurement, the refinement of which will happen over time, through retesting, re-use and ongoing development of both conceptual and empirical understandings of social capital.

As discussed above, in order to investigate social capital empirically it is critical to separate the measures of social capital from measures of its determinants and outcomes. Hence, the following section discusses the measures of determinants and outcomes of social capital.

2.6 Social Capital and its Predictors

Social capital is becoming a core concept in business, political science, public health and sociology (Moore, 2005; Williams, 2006). Empirical results often come to contradictory conclusions and social capital is often conceived of as both a cause and an effect (Resnick, 2000; Williams, 2006). Burt (2000) highlights the importance of networks within and between groups and suggests that networks do not simply imply the number of connections people have, but those that develop into social capital. That is, people who have well-connected networks have advantages in forming social capital.

Social networks are associated with social capital (Neergard & Madsen, 2004). Social capital is defined as an asset that inheres in social relations and networks (Burt, 1997). Social networks are the causal agents of social capital (Williams, 2006). Resource requests and offers occur through both offline and online channels and may vary based on the nature of the relationship. Wellman said, "A social network is a set of relevant social groups that are connected to each other through one or several relations". Such units are most often individuals or organizations. In fact, each unit that can be connected to the other units might be studied as the groups (Rajabi, 2010).

In the discipline of sociology, the concept of social Network refer to a social structure made up of individuals who are connected to each other and have a complex set of relationships or ties between themselves. So, in the study of social capital or social relationships the analysis of the role of social networks assumes significance. A social network is a collection of individuals linked together by a set of relations (Downes, 2005).

Putnam offers four explanations why networks and affiliations have such a strong effect on social capital.

- Networks increase the cost of defection, opportunistic behaviour puts other transactions at risk that this person might want to be engaged in, in the future.
- Networks foster norms of reciprocity.
- Networks facilitate communication that improve the flow of information about trustworthy individuals.
- Networks embody past success of co-operation.

2.6.1 Social Networks: Online and Offline

Networks are the building blocks of social capital. Social networks are the most important source of social capital because social capital is understood to exist in connections between and among individual people (Smedlund, 2008). It bring people together with a sense of common purpose based on shared values and identity and also enable us to exchange information, debate and discuss matters, and give and receive support. Almost all of us belong to networks. A network can be informal - such as a family, group of friends, neighbourhood, or community group - or formal – such as local

government, the courts, trade unions, or a workplace. The best networks do not exclude people, but help to spread knowledge, power and capacity. A social network can broadly be defined as a set of actors and the set of ties representing some relationship – or lack of relationship – amongst the actors (Brass, Butterfield & Skaggs, 1998). Actors in a social network people, organizations or other social entities) are connected by a set of relationships, such as friendship, affiliation, financial exchanges, trading relations or information exchange. An online social network (OSN) is an extension of the traditional social network on the Internet, which is actually online software that people use to establish social connections. Online social networks includes various online technologies such as blog, Twitter, *Facebook*, Mashup, instant message, video conference, virtual world, semantic websites, etc. (Lee & Chen, 2011). And online social networks use computer support as the basis of communication amongst its members (Andrews, Preece, & Turoff, 2001).

Just like members of offline social networks, members of online social networks work together to initiate collective efforts. Both offline and online social networks have similarities like in both cases, members asks each other for help, advice and even secrets to whom they are comfortable with. Online and offline social networks are considered as excellent platforms for the individual social networking members to discuss the social issues prevailing in the society. Both online and offline social networks build and maintain relationships with other members of networks as these provide a place to interact, converse and thereby build relationships. Another feature of both online and offline social networks is that they help the members for entertainment purposes. For example, regular users of online social networks log in these networks because it possesses entertainment value to them.

Like offline social networks, online social networking members also work together harmoniously for a common cause. And in both cases social capital, relationships and collective action initiatives are created.

In distinguishing face-to-face (offline) from mediated support (online), the richer set of available cues available in person allows for expression of emotion through touch and leads to social bonding. Research in organizational settings, where individuals interact through both mediated and face-to-face channels, has stressed the importance of in-person interaction in relationship development and task completion because it enable full use of verbal and non-verbal communication behaviors, which may lead to more efficient workflow and increase more informal interactions. These types of interactions help create common ground, which, in turn, may increase relational strength. People build up a social network based on social interaction and strengthen the affective solidarity based on compassion. These social resources generate positive output such as warm affective support as well as mobilizing capability to call together acquaintances. Social capital acts cyclically within a social network through a norm related to reciprocity (Newton, 2001), and this situation could occur both offline and online (Resnick, 2001). Hence, it can be concluded that both online and offline social networks promote social capital.

2.6.2 SNS Usage

Social networking sites, such as Twitter, Myspace and *Facebook*, have become popular media for online communication. These sites allow people freely to participate, mediate their own content and interact with others. Moreno (2008) has identified seven motives behind the use of social

networking sites: self-reflection and image-building, utility, information-gathering and problem solving, networking, simply-spending time, revisiting-memories and peer influence.

Much of the existing academic research on *Facebook* has focused on identity presentation and privacy concerns (e.g., Gross & Acquisti, 2005; Stutzman, 2006). Looking at the amount of information *Facebook* participants provide about themselves, the relatively open nature of the information, and the lack of privacy controls enacted by the users, Gross & Acquisti (2005) argue that users may be putting themselves at risk both offline (e.g., stalking) and online (e.g., identify theft). Other recent *Facebook* research examines student perceptions of instructor presence and self-disclosure (Hewitt & Forte, 2006; Mazer, Murphy, & Simonds, 2007), temporal patterns of use (Golder, Wilkinson, & Huberman, 2007), and the relationship between profile structure and friendship articulation (Lampe, Ellison, & Steinfield, 2007). In contrast to popular press coverage which has primarily focused on negative outcomes of *Facebook* use stemming from users' misconceptions about the nature of their online audience, researchers are interested in situations in which the intended audience for the profile (such as well-meaning peers and friends) and the actual audience are aligned. Social networking and online privacy seriously turn out to be a serious concern when sensitive information is being shared and with the changing definition of 'social networking' in this internet age (Saswati Gangopadhyay & Debarati Dhar, 2014).

A number of research works have studied *Facebook* in the context of motivation to use (Shi, 2010; Gangadharbatla, 2008; Kwon & Wen, 2010),

usage effects (Andon, 2007), and concerns of identity (Dwyer, 2007). Usage of social networks may include feelings of affiliation and belonging, goal achievement, values, and notions of accepted behavior (Ridings & Gefen, 2004).

For example, Joinson (2008) applied this approach to understand how *Facebook* members used the site, finding some users were mainly interested in interpersonal communication, while others were more invested in picture sharing or playing games. Also applying a Uses and Gratifications lens, Papacharissi & Mendelson (2011) showed how different motivations were associated with levels of social capital reported by *Facebook* users. Smock (2011) studied how college students' uses of and gratifications derived from *Facebook* were associated with use of and efficacy toward different *Facebook* features.

Some research has looked at how *Facebook* facilitates in developing online relationship among its users. *Facebook* promotes relationship building between its users by enabling users to track others in their communities (Lampe, Ellison & Steinfield, 2007). Raacke & Bonds-Raacke (2008) found that the vast majority of college students use *Facebook* for making new friends and locating old acquaintances. Madhusudhan (2012) noticed that student and research scholars of academic institutions are using SNS not only as a tool for friendship but also as a strong medium for parallel journalism and a tool to mobilize new generation students. Prior research has revealed that internet users join SNSs for staying in touch with friends, and make new friends (Lenhart & Madden, 2007). Other reasons for people joining SNSs are a sense of belonging and companionship (Wellman & Gulia, 1999).

Research has suggested that “intensity” of *Facebook* use is positively associated with life satisfaction (Ellison, 2007; Valenzuela, 2009), both exposure to ones' own profile (Gonzales & Hancock, 2011) and time spent using *Facebook* (Gentile, 2012) are positively associated with self-esteem, and that the number of *Facebook* friends is negatively associated with loneliness (Burke, 2010). On the other hand, other research has found that both time spent using *Facebook* (Kalpidou, 2011) and the frequency of checking one’s *Facebook* account (Mehdizadeh, 2010) is associated with lower self-esteem.

Further, duration of *Facebook* use was positively associated with user’s perceptions that others had both better lives and were happier than themselves, as well as lower endorsement of perceptions that life is fair (Chou & Edge, 2012). For uses specific to *Facebook*, while additional motivations have been occasionally reported (e.g. reputation enhancement; Joinson, 2008), the two primary motives are seeking new relationships or cultivating existing relationships (Joinson, 2008; Bonds Raacke & Raacke, 2010; Lampe, 2006; Lenhart, 2008; Subrahmanyam, 2008; Tosun, 2012; Nadkarni & Hofmann, 2012). Psychological well-being and *Facebook* usage was studied and the bi-directional relationship between these two variables (Sheldon, 2011), shows that psychological well-being may be a predictive of higher quantities of higher quantities of *Facebook* use.

It was showed that *Facebook* usage has a major role in maintaining existing offline relationships, but does not have a major role in meeting new people. Therefore, *Facebook* is mostly used to strengthen the existing social capital. Furthermore, they believe that *Facebook* provides larger benefits for

users who have low self-esteem and low life satisfaction (Ellison Nicole B, 2007).

In light of the foregoing, the rapid adoption of the use of SNSs (NielsenWire, 2010) raises important questions about the social implications of their usage. Any social interaction creates, or at least, changes social capital. This is supported by Soubeyran & Weber (2002) who posited that social capital can be created through repeated exchange and face-to-face contacts. Face-to-face interaction is a primary component of both Granovetter's conceptual definition of tie strength as well as Weiss' description of a primary relationship. Furthermore, a number of media theories argue that face-to-face interaction should be viewed as superior to other forms of communication.

Tong & Walther (2011) note that SNSs reduce the cost of relationship maintenance, presumably enabling more frequent message exchanges with a wider set of contacts. On SNSs, messages can either be directed to a specific individual, subset of individuals, or distributed to one's entire network. *Facebook* status updates allow commenters to interact with one another, and thus can facilitate interaction among "Friends of Friends" who are more likely to be sources of novel information (Granovetter, 1973). *Facebook* and other SNSs provide an ideal platform for relationship maintenance interactions to occur quickly, with multiple others, and with low transaction costs because they enable wide dissemination of messages and foster participation, feedback, and interaction through various communication channels (Tong & Walther, 2011).

Facebook plays an important role in the process of forming and managing social capital by improving self-esteem and low life satisfaction (Ellison, Steinfield, & Lampe, 2007). Similarly, Shah, Kwak, & Holbert (2001) found that overall internet use was positively related to social capital, in term of civic engagement and interpersonal trust. However, this is not true to different types of internet usage. Specifically, the production of social capital was negatively related with the use of the internet for recreation, e.g., chat rooms or games, but positively related with the use of the internet for information exchange, such as searching or emailing. This finding is in part in accordance with the result reported by Beaudoin & Tao (2007) where asynchronous online communication, including e-mail and discussion groups, developed social support among cancer patients, resulting in positive health outcomes.

As such, social capital is potentially produced in online settings, namely digital social capital (Mandarano, Meenar, & Steins, 2010). Steinfield, Ellison, & Lampe (2008) found that *Facebook* increased bridging social capital by building and maintaining weak ties among groups of distant friends and acquaintances. For Twitter, Ye (2012) found that social capital could be transferred from real world to virtual one. On the other way, virtual communities were also found to help increase offline social capital (Kobayashi, Ikeda, & Miyata, 2006). The most generic computational model of social capital in online social networks is the work of Kazienko & Musiał (2006) which defines social capital for each user as a linear combination of the following functional components of the user: static component (does not change with time, e.g., derived his or her profile), marched-by-search (reflecting his/her openness to new acquaintances), activity (characterizing

online activities such as frequency of posting or commenting) and social position.

Drawing on Boyd & Ellison (2007), OSNs are defined as web-based services that (1) allow individuals to create a public or semi-public profile for themselves within a bounded system, (2) indicate a list of other users with whom they are connected, and (3) view and traverse their list of connections and those made out by other users within the system. In some contexts such as the marketing literature, the terms ‘online social network’ and ‘virtual community’ are often used synonymously. Virtual communities are viewed as consumer groups of varying sizes that communicate regularly and for some duration in an organized way over the internet through a common location or mechanism to achieve personal as well as shared goals of their members (Dholakia, Bagozzi, & Pearo, 2004; Ridings, Gefen, & Arinze, 2004).

Other research has investigated the relation between motivations for using *Facebook* and psychological well-being (Shields & Kane, 2011). For example, uses and gratifications theory postulates that the desires that motivate media consumption are important to consider in understanding mass communication. For uses specific to *Facebook*, while additional motivations have been occasionally reported (e.g. reputation enhancement; Joinson, 2008), the two primary motives are seeking new relationships or cultivating existing relationships (Joinson, 2008; Bonds Raacke & Raacke, 2010; Lampe, 2006; Lenhart, 2008; Subrahmanyam, 2008; Tosun 2012; compare with Nadkarni & Hofmann, 2012). Further, initial evidence suggests that these primary motivations of *Facebook* use may also be

predictive of psychological well-being. For example, incoming college students that used *Facebook* to develop new connections reported lower social adjustment and higher levels of loneliness while incoming students that used the site to maintain existing relationships were more likely to report better social adjustment and lower levels of loneliness (Yang & Brown, 2013). Similarly, users that reported higher numbers of *Facebook* friends that they did not personally know, indicating a pattern of establishing online connections in the absence of established offline relationships, reported higher endorsement of perceptions that others had better lives than themselves (Chou & Edge, 2012).

2.6.3 Social Trust

Trust is the key component of the relational dimension that has been the most widely studied (Daniel, 2003). Trust is the willingness of a party to be vulnerable, and entails the expectation that the other will perform a particular action irrespective of the trustor's ability to monitor or control them (Mayer, 1995). Trust is a multidimensional construct and has been defined in many different ways (Gefen, 2003; Mayer, 1995; McKnight, 2002). Trust is conceptualized as generalized trust, which refers to the belief in good intent, competence, and reliability of other online SNS users regarding their activities and of the online social network platform service provider (Dinev & Hart, 2006; Mishra, 1996).

Trust, a vital and fragile commodity, is also necessary to study if one is to understand social capital (Dasgupta, 2000). According to Fukuyama (1995), the level of trust inherent within a given society determines a nation's wellbeing and ability to compete. Trust is defined as "the expectation that arises

within a community of regular, honest, and co-operative behaviour, based on commonly shared norms, on the part of other members of the community” (Fukuyama, 1995). It remains unclear, however, whether trust is an intrinsic part of social capital, a product of it or a precursor to it (Woolcock, 2010). Nevertheless it has important payoffs: communities characterized by high levels of trust (between individuals, institutions and between individuals and institutions) are more likely to be happy, prosperous and virtuous.

Social use of the technology can enable the development of trust in numerous ways. First, it facilitates social interactions and social networks at work that could generate trusting relationships (Granovetter, 1982; Gulati, 1995). Second, it provides the necessary platform or context for repeated interactions and social exchange, including the exchange of personal experiences and advice (Blau, 1964; Whitener, 1998). Third, social usage supports the development of familiarity and bonds, which in turn support trust (Hsu, 2007; Rousseau, 1998). Fourth, information on the network ties that lie between two individuals may lead to trust through common ties (Burt & Knez, 1995; Levin & Cross, 2004).

Trust is defined as “the willingness of a party to be vulnerable to the actions of another party” (Mayer, Davis, & Schoorman, 1995). Trusting relationships are multi-dimensional, relying on shared respect and active exchange (Ingram & Roberts, 2000). Trust is a requirement for team members to leverage their associated relationships. Personal relations develop among individuals as a function of their history with each other and are fundamental to the concept of trust. Continued reciprocity and the acceptance of vulnerability evolve during a relationship through recurring interactions

(Jones & George, 1998). Similarly, Granovetter (1982) suggests that trust grows from steadfastness and interdependence in relationships. Blau (1964) creates a synopsis of the relationship development process by suggesting that: social exchange relations evolve in a slow process, starting with minor transactions in which little trust is required because little risk is involved and in which both partners can prove their trustworthiness enabling them to expand their relationship and engage in major transactions. Thus, the process of social exchange leads to the trust required for it in a self-governing fashion. Burt (2001) suggests that behavioral variability is also an important predictor of trust.

Petróczi (2007) studied the measurement of tie strength in social networks and found out that the indicators in virtual groups are similar to those in offline networks. Trust, mutual confiding, multiplexity and shared interests were equally important in both types of social groups. Therefore, it can be concluded that for social capital to exist, trust must be present in the relationships.

2.7 Outcomes of Social Capital

Generally, social capital refers to the social relationships between people that enable productive outcomes (Szreter, 2000). Social capital has been linked to a variety of positive social outcomes, such as better public health, lower crime rates, and more efficient financial markets (Adler & Kwon, 2002). According to several measures of social capital, this important resource has been declining in the U.S. for the past several years (Putnam, 2000). When social capital declines, a community experiences increased social disorder, reduced participation in civic activities, and

potentially more distrust among community members. Greater social capital increases commitment to a community and the ability to mobilize collective actions, among other benefits. Social capital may also be used for negative purposes, but in general social capital is seen as a positive effect of interaction among participants in a social network (Helliwell & Putnam, 2004).

2.7.1 Health Outcomes

The researchers have found that the presence of social capital through social networks and communities has a protective quality on health of individuals. Social capital affects health risk behaviour in the sense that individuals who are embedded in a network rich in support, social trust, information have resources that help to achieve health goals. The process of social capital development as depicted by Glover & Parry (2005) explains that health and well-being are the most important outcome of social capital. Moreover, social capital researchers have found that various forms of social capital, including ties with friends and neighbours, are related to indices of psychological well-being, such as self-esteem and satisfaction with life (Bargh & McKenna, 2004; Helliwell & Putnam, 2004). Since there is direct relationship between social capital and positive health, these two concepts can be linked.

2.7.2 Educational Outcomes

Putnam (2000) mentioned that child development is powerfully shaped by social capital and the presence of social capital has been linked to various positive outcomes, particularly in education. And studies supported that where there is a high social capital, there is also a high education

performance. Social capital is an important factor in education of children. The most important factor in promoting student success is the active involvement of parents in a child's education. If parents also involved in activities and meetings the school conducts, the more involved parents are with other parents and the staff members. Thus, parent involvement contributes to social capital and their involvement and participation in school community makes the school a sustainable to run community.

2.7.3 Social and Economic Development

The World Bank has played a major role in promoting the concept regarding it as an important development tool or the “the missing link” (Grootaert, 1998) which is essential for alleviating poverty and achieving societal development. Similarly, management experts have regarded it as a way of thinking about organizational development and maintenance (Cohen & Prusak, 2001). According to Stone (2001) the essence of social capital is quality social relations. Grootaert (1998) stated that social capital is the glue that holds societies together and without which there can be no economic growth or human well-being. The positive benefits of the social capital are reported to have implications for a range of areas including education, social and economic development and social and civic stability (Fukuyama, 1999; Putnam, 1993). Coleman uses the term social capital to refer to all human relationships. His concept of social capital includes: obligations, expectations, and trustworthiness of structures; information channels; and norms and effective sanctions.

Previous research has provided evidence of a positive association between bonding social capital and economic well-being. For example,

Weaver & Habibov (2012), in their comparison of social and human capital's influence on economic well-being, determined that higher levels of bonding social capital measured in a variety of ways, including communicating with relatives and friends over the internet, predicted higher income levels. Fafchamps (2002) analysed data collected from agricultural traders to assess the impact of social capital on firm productivity. Their measures of social capital were akin to the concept of bonding social capital, consisting of number of relatives in agricultural trade, number of traders known, and number of potential informal lenders. The results of the authors' data analysis indicated that relationships with other traders and potential lenders boosted economic productivity, as better connected traders had significantly larger sales. Moreover, Henly, Danziger, & Offer (2005) determined that low-income women who received child care assistance and emotional support from friends and relatives reported a lower likelihood of experiencing economic hardships such as housing problems and utility shut-offs and for engaging in financial coping activities such as selling blood or plasma.

Other studies have considered the impact of bridging social capital on economic well-being. For instance, Kawachi (1997) ascertained that an increase in per-capita membership in a host of groups that could cultivate bridging social capital was associated with a decrease in income inequality. These groups included labor unions, school groups, professional and academic societies, political groups, and fraternal organizations. In other studies suggesting the positive impact of bridging social capital on economic well-being, Yusuf (2008) ascertained that membership and participation in associations was linked to an increase in household economic welfare while Narayan & Pritchett (1999), in their rural household

study, detected a positive association between social capital and income. For Narayan & Pritchett, social capital was measured through memberships in associations such as churches, mosques, and political and women's groups while per capita household expenditures served as a proxy for income. Moreover, Schneider (2006) detected the key role bridging social capital can play in promoting economic mobility amongst low-income persons and proposed that "bridging social capital is an important ingredient in successful anti-poverty policy". Furthermore, De Souza Briggs (1998) reported that low income youth with bridging social capital in the form of knowing at least one employed adult experienced an increase in their "perceived access to job information".

2.8 Collective Action

Collective action is an important concept for the understanding of collective behavior and social movements. Historically, the theory of collective action started with Mancur Olson (1965) who proposed that individuals' contribution in collective action is a rational and economic act. One of the earliest methods to social movement is based in collective behavior strategy, which views social movements as semi-rational, non-routine ways of collective action aimed toward social change.

Olson (1965) observed that collective action is possible only when free-riders are excluded from the benefits of joining the group, and when selective incentives are made available to members. Social movement organizations (McCarthy & Zald, 1977), work and neighborhood organizations, and informal friendship networks (Tilly, 1978) are the main sources through which people can mobilize and engage in collective action. Central to the

concept of collective action is political mobilization, a process that can involve a variety of strategies and tactics for bringing people together to effect political, social, and ideological change.

The emergence of new media and information and communication technologies (ICT) has transformed the landscape of collective action and social movement. Collective actions are formed from social ties between individuals with the combination of strong ties and weak ties (Granovetter, 1973). In an open network of members such as social networking sites the communications landscape gets denser, more complex, and more participatory and the networked population is gaining greater access to information, more opportunities to engage in public speech, and an enhanced ability to undertake collective action.

When collective action is urgent, the person is likely to contribute his or her share even if the impact of that share is not noticeable. Additionally, once someone has participated in a movement, no matter how small the contribution, it is likely that individual will feel more committed to the cause and more a part of that community, thus potentially leading to a ‘greater sense of obligation’ and the likelihood of further engagement with the cause (Garrett, 2006).

Postmes & Brunsting (2002) concluded that when it comes to collective action, the internet is ‘opening up new avenues’ and ‘reinforcing existing forms’. They noted that internet versions have emerged for most traditional forms of collective action: emails, online petitions, ‘virtual’ sit-ins, and cyber-attacks.

A number of studies have attempted to understand collective action processes in online environments (Lupia & Sin, 2003; Bimber, 2005), which can be defined as all activities involving two or more individuals contributing to a collective effort on the basis of mutual interests and the possibility of benefits from coordinated action (Marwell, 1993). A number of studies attempt to understand collective action processes in online environments (Lupia & Sin, 2003, Bimber, 2005). Rolfe (2005) and Van Laer & Van Aelst (2009) suggested that it is important to consider ways the internet might be fundamentally changing activism and creating new forms of resistance.

While information and communication technology can create weak ties, and reinforce existing social relationships, many scholars believe it is unlikely these digital tools could foster new, strong community ties that are necessary for sustained collective action (Diani, 2000; Tilly, 2005; Polat, 2005). However, the potential of the internet for building trust and constructing collective identities online, which can be turned into mobilization and participation offline (Nip, 2004; Hara, 2008; Wojcieszak, 2009) have also studied. Wojcieszak's (2009) found out that online and radical environmentalist groups indicated that as participation in online forums increased, so did participation in offline political activities. SNS have the ability to turn online activism into offline activism, an important contribution to research linking changes in activism to the internet and SNS (Harlow & Dustin Harp, 2012).

Gladwell (2010) argued that digitally networked activism fails to generate committed collective action when the going gets tough. He

characterized social media activism in terms of weak ties and horizontal decentralized organization and contrasted this unfavorably with the strong ties and centralized hierarchical organization which marked key junctures in the Civil Rights Movement. Digitally networked action, Gladwell (2010) concluded, is ill-equipped to bring about systemic change.

Klandermans (1997) stated that a collective action organized by social movements depends on its expected costs and benefits and suggested gradual steps of social movement participation: (a) becoming part of the mobilization potential, (b) becoming a target of mobilization attempts, (c) becoming motivated to participate, and (d) overcoming barriers to participation (Simon, 1998). These steps show the different levels of participation in social movements related to barriers of a specific action.

Earl & Kimport (2011) distinguish between three forms of online-supported movements: e-mobilizations, for which the web is used primarily as a tool to facilitate the coordination of offline protests (e.g. street demonstrations); e-movements, where both the organization of the protest and the protest itself take place online (e.g. distributed denial of service attacks); and e-tactics, which combine online and offline components e.g. petitions). It should be noted, moreover, that this ideal-type categorization serves more as a conceptual tool and that any one movement will most likely be a combination of two or all three forms, especially since online and offline protests generally overlap (Anduiza, Cristancho, & Sabucedo, 2014; Thorson, 2013; Earl, 2013).

Many observers think that collective action primarily happens face-to-face or in closely allied activities and online activities are inevitably peripheral and less important. However, social media environments allow other people to know what we ourselves are doing by making us visible, where individuals or groups take photographs of themselves with mobile phones and upload them to social media websites. This new visibility expands our possibilities for undertaking collective action in terms of how we might try to spread ideas or information and draw in other people.

Juris (2012) has remarked that social media platforms facilitate the aggregation of individuals around common cause and thereby facilitates collective action. The use of the internet across all spheres of life means that some of these acts have moved largely to internet-based settings (signing petitions, for example), some remain largely offline but are usually coordinated through internet-based means (voting, boycotting products, demonstration, and political violence). And face to face interaction also enhance cooperation in social issues (i.e. collective good problems), thereby promoting collective action.

There are some arguments that computer mediated communication lowers the barriers to collective action (Hampton & Wellman, 2003). But, social media become new forms of social movements (Meek, 2011). Social media have interactive features facilitating participatory culture, which transforms the ways of engaging in social movements through media (Meek, 2011; Shirky, 2011). Some critics point out that through social media people may join social movements without substantial commitment and thereby remain passive users rather than active members. There is also a concern

that social movements on social media only promote certain kinds of actions which require less effort, making these movements nothing more than superficial clicktivism (Van Laer & Van Aelst, 2010).

2.9 Personality Variables

The studies of personality have been an important measure for human behaviour. Personality is a certain pattern of behaviour, attitudes and feelings of each individual to determine how to adapt to the environment of each individual. Many psychologists argue that personality characteristics are practically stable among people and are different from each other. Following the shift in human interactions, socialization, and communication activities towards online platforms, researchers have noted such behavioural residues. The researchers have shown that individuals can identify other people's personality traits by examining their living spaces (Gosling, 2002) or music collections (Rentfrow & Gosling, 2006) are not restricted to the offline environment alone and showed that personality can be inferred from records of keyboard and mouse use (Khan, 2008), contents of personal websites (Marcus, 2006; Vazire & Gosling, 2004), or *Facebook* likes (Kosinski, 2013). So, there is a lot of scope for creating new literatures based on empirical studies linking personality traits with social capital in social networking context.

Contemporary research on personality factors is rooted in efforts to establish a taxonomy of attributes used to describe personality characteristics. The first systematic, empirical approach was led by Cattell (e.g., 1943, 1945), who used factor analysis to determine how various descriptors might merge into dimensions of personality. Independent investigations that

followed the work of Cattell consistently led to a multidimensional representation of personality as “five superordinate constructs” (Digman, 1989). Consensus in the field supports portraying personality using the five dimensions that have come to be known as the Big Five (Barrick & Mount, 1991; Digman, 1989). Personality measures reflecting the factors have been shown to be very stable over time for example, Soldz & Vaillant, (1999) found that measures capturing the Big Five factors are highly stable as students transition from high school into college, and are not influenced by changes in one’s social relationships. Research has also found that the five-factor structure has been established in non-English languages and across a variety of cultures (e.g., Mount & Barrick, 1995).

The Five Factor Model (FFM) divided personality into a series of five dimensional traits (McCrae, 1992). The “Big Five” model of personality dimensions is one of the most well-researched measures of personality structure in recent years (Golbeck, Robles, & Turner, 2011), and is considered a comprehensive model of personality (Costa & McCrae, 1992). Each factor in the model is bipolar and contains different aspects. The factors that comprise the Big Five model include extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Individuals high on extraversion are gregarious, assertive, and energetic (Barrick & Mount, 1991). Individuals high on agreeableness tend to be sympathetic and attentive to the needs of others, as well as good - natured and cooperative, which leads them to be well - liked by others (Barrick & Mount, 1991; Costa & McCrae, 1992). The neuroticism factor concerns the emotional stability of an individual; that is, persons low on neuroticism (i.e., high on emotional stability) tend to be calm, even-tempered, and able to maintain

composure in the face of adversity (Costa & McCrae, 1992). Finally, the openness to experience factor reflects intellectual curiosity, learning motivation, resourcefulness, and willingness to engage in novel experiences (Costa & McCrae, 1992; De Raad & Schowenburg, 1996).

2.9.1 Neuroticism

Neuroticism, often referred to as emotional instability, is the tendency to experience mood swings and negative emotions such as guilt, anger, anxiety, and depression. Highly neurotic people are more likely to experience stress and nervousness, while those with lower neuroticism tend to be calmer and more self-confident, but at the extreme they may be emotionally reserved.

Butt & Philips (2008) described how individuals who were high in trait of neuroticism were likely to use internet to avoid loneliness. Swickert, Hitcher, Harris, & Herring (2002) conducted a study of online activities like chat rooms, discussion boards and instant messaging, they found that individuals who were high of neuroticism reported lowest level of perceived social support. Wolfradt & Doll (2011), found out that when combined with high levels of social interests, those who were high on neuroticism demonstrated a strong interest in using the internet for communication. Amichai Hamburger, Wainpel & Fox (2002) individuals who are high on trait of neuroticism were more likely to post accurate personal information on their profiles.

2.9.2 Extraversion

Extroversion measures a person's tendency to seek stimulation in the external world, the company of others, and to express positive emotions. Extroverts tend to be more outgoing, friendly, and socially active. They are usually energetic and talkative, do not mind being at the centre of attention, and make new friends more easily. Introverts are more comfortable in their own company, can be reserved, and tend to seek environments characterized by lower levels of external stimulation.

Amichai Hamburger (2002) indicated that individuals who are low on trait of extraversion are more likely to utilize technology such as social networking sites for their communication needs. Wehrli (2008) tried to explore how individual personality characteristics influence online social network behaviour and found that extraversion plays an important role in user's intention to form online networking ties. Those high in extraversion are talkative and assertive, and are not passive and reserved (Goldberg, 1993).

Wanberg (2000) found that extraversion and conscientiousness are associated with higher levels of networking intensity. Contrary to introverts, extroverts are positively affected by using internet; as the saying goes, money breeds money. Extroverts are those who tend to like people and enjoy social interactions (Kraut, 2002).

More recent studies involving personality traits as predictors of social networking sites showed all five factors were relevant (Ross, 2009; Wehrli, 2008; Zywicki & Danowski, 2008). Extroverts have many connections via the social networking site and extroversion was shown to be the

dominant factor of the group (Gosling, Augustine, Vazire, Holtzman, & Gaddis, 2012; Zywicki & Danowski, 2008).

2.9.3 Agreeableness

Agreeableness measures the extent to which a person is focused on maintaining positive social relations. High Agreeableness scorers tend to be friendly and compassionate, but may find it difficult to tell a hard truth. They are more likely to behave in a cooperative way, trust people, and adapt to the needs of others, but consequently they may find it difficult to argue their own opinion.

Landers & Lounsbury (2006) found out that those who were low on the traits of agreeableness was associated with individuals who were unpleasant to be around. Butt & Philips (2008) found that those who were low in agreeableness are the one, who were most likely to receive cellular phone calls in public places. Selfhout (2009) found that people with a high level of agreeableness were selected more often as friends in social networks. Those high in agreeableness are kind and trustworthy, and are not aggressive or selfish.

2.9.4 Conscientiousness

Conscientiousness measures the preference for an organized approach to life as opposed to a spontaneous one. People high on conscientiousness are more likely to be well organized, reliable, and consistent. They plan ahead, seek achievements, and pursue long-term goals. Low conscientiousness individuals are generally more easy-going, spontaneous, and creative. They tend to be more tolerant and less bound by rules and plans.

Those high in conscientiousness are organized and thorough, and are not careless and unreliable. Conscientious individuals are typically described as reliable, accountable, hardworking, purposeful, and achievement - oriented (Barrick & Mount, 1991). It is perhaps not surprising that conscientiousness in students has been consistently linked to their academic performance (e.g., Poropat, 2009).

Conscientiousness has shown to be negatively related to the use of the internet and other forms of CMC (Butt & Phillips, 2008; Swickert, 2002). This trend is likely given that those who are high on the trait of conscientiousness are dutiful and responsible in their tasks, and therefore those scoring high on the trait of conscientiousness are more likely to avoid CMC tools which may serve as procrastination or distraction tools from their daily tasks.

2.9.5 Openness to Experience

Openness to experience measures a person's imagination, curiosity, seeking of new experiences and interest in culture, ideas, and aesthetics. It is related to emotional sensitivity, tolerance and political liberalism. People high on openness tend to have a great appreciation for art, adventure, and new or unusual ideas. Those with low openness tend to be more conventional, less creative, and more authoritarian. They tend to avoid change for its own sake and are usually more conservative and traditional. Those high in openness are curious and creative, and are not afraid of change (Goldberg, 1993).

Several earlier papers investigate the relationships between personality traits and Face-book profile features. For example, Golbeck (2011) attempted to predict personality from *Facebook* profile information using

machine learning algorithms. They used a very rich set of features, including both *Facebook* profile features, such as the ones we use in this work, but also the words used in status updates. Gosling (2011) revealed several connections between personality and self-reported *Facebook* features. For example, they showed the positive relationship between Extroversion and frequency of *Facebook* usage and engagement in the site. As in offline contexts, Extroverts seek out virtual social engagement, leaving behind a behavioural residue such as friendship connections or picture postings. Quercia (2012) studied the relationship between *Facebook* popularity (number of contacts) and personality traits, showing that extroversion predicts the number of *Facebook* contacts. They also found no statistical evidence for the relationship between popularity and self-monitoring - a personality trait describing an ability adapt to new forms of communication, present oneself in likeable ways, and maintain superficial relationships. Ross (2009) pioneered the study of the association between personality and patterns of social network usage.

In a similar study, Amichai Hamburger & Vinitzky (2010) used actual *Facebook* profile information rather than self-reports. They found several significant correlations, but some of their findings were in contradiction to those of Ross (2009). For example, they found that extroversion was positively correlated with the number of *Facebook* friends, but uncorrelated with the number of *Facebook* groups, whereas Ross (2009) found that extroversion had an effect on group membership, but not on the number of friends. Additionally, they found that high neuroticism was positively correlated with users posting their own photo, but negatively correlated with uploading photos in general, while Ross (2009) argued that high neuroticism

is negatively correlated with users posting their own photo. Even though, there are studies which linked personality variables with SNS usage, only very few studies have examined the significance of personality related predictors in promoting social capital.

2.10 Gaps in the Literature

The literature review has shown that the significance of online social capital research is stronger than ever, as “we are witnessing a revolutionary rise of social capital as represented by cyber-network” (Lin, 1999). Moreover, Lin’s assertion that “much work is urgently needed to understand how cyber-networks build and signal social capital” is still valid today. Indeed, the literature review has revealed several serious research gap in the research on social capital.

Social capital concept is a complex theory with many dimensions, types, levels and determinants and although different authors identify different dimensions of social capital, all authors seem to agree that social capital is a multi-dimensional construct. Hence, further research is needed to conceptualize the various dimensions of social capital within a workable framework and much work is still required to understand the social capital determinants from the applied theory area to have empirical support. Additionally, despite the debate if social capital happens at a group level or at an individual level, both levels can be united under a network perspective (Borgatti, 2002). The two perspectives of social capital didn’t exclude one another and they are simply interested in different types of outcomes of social networks (Lin, 2001). Collective social capital doesn’t negate the importance of studying networks of individuals, neither does individual

social capital negate the importance of studying collective consequences of individual choices. Thus, how individual social capital like bridging, bonding and cognitive affects collective outcomes such as willingness to collective action need to be looked into from a social network perspective.

Furthermore, social capital as a dependent variable has been studied in most of the literature and the structural dimension of social capital is discussed in online context. The other type of social capital - cognitive social capital has been less explored. And most of the social capital studies focused on predictors of social capital or the major factors contributing to social capital, but the outcomes of social capital are less studied. Finally, the relationship between social capital and outcomes of social capital across online and offline social networks also need to be studied as we can see a shift from offline to online interaction between individuals and Williams (2006) argued that social capital is developed differently in online and offline context. Literature review suggests the need for exploring and analyzing the possible link between the personality characteristics of the members of the social networking sites and their social capital. It would also be instructive to know which personality trait is predicting which types of social capital better.

2.11 Chapter Summary

The literature review discussed in this chapter has led to a number of observations: Firstly, this chapter detailed the different perceptions on the concept of social capital. Secondly, the systematic review of online social capital shows that bridging and bonding model of social capital is widely used as a framework for conducting research on online social capital.

Lastly, the review has shown that the concept of social capital is useful to predict a number of individual and collective outcomes or benefits to the members that result from social networks.

.....

Chapter **3**

CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

Contents	3.1 <i>Theoretical Background</i>
	3.2 <i>Conceptual Model and Hypotheses Development</i>
	3.3 <i>Chapter Summary</i>

This chapter review the existing fundamental theories on SNS usage and social capital in order to build up the theoretical foundation necessary to the creation of an online social capital framework for social networking members. This chapter presents the existing studies on intensity of SNS usage and its relation with social capital in terms of their contribution to the bridging, bonding and cognitive social capital and studies linking social capital and willingness to collective action. This chapter also discusses the creation of hypotheses concerning the influence of intensity of SNS usage to social capital and then social capital to willingness to collective action.

3.1 Theoretical Background

The literature on social capital suggests that social capital concept is rooted in social networks and social relations and must be measured relative to its root. Under the network perspective, social capital can be defined as resource embedded in a social structure which are accessed and or mobilised in purposive action. The social resource theory has specifically proposed that access to and use of social resources (social resources embedded in social network) can lead to better socio-economic status. The social resources in this context can be bridging social capital, bonding social capital or cognitive social capital resource. Hence, the social resource theory needs to be discussed before looking in detail into the conceptual model of the study.

As social networking sites emerge as a major source of social capital during the last few years, several researchers began pay attention by linking these two concepts. Mass communication researchers are using the uses and gratification theory to provide an explanation as to why users find this new form of medium to be so appealing. And specific to this study context, it is proposed that intensive use of social networking sites can gratify one's need to connect with other people on their social network. Thus, major theories relating to the variables under the study are discussed in this section before going in detail into the conceptual framework for the study. Uses and gratification theory and social resource theory are considered as the best for framing the conceptual model. A brief outline of these theories are given below:

3.1.1 Uses and Gratification Theory

Uses and gratifications theory has provided an important framework in emerging media use studies, identifying new usage benchmarks and providing a structure to understand media use's affective dimensions (Ruggiero, 2000). Prior studies have demonstrated uses of social media to include entertainment, information sharing, and social information seeking, in addition to supporting the maintenance of relationships (e.g. Quan-Haase & Young, 2010; Whiting & Williams, 2013). As a uses and gratifications approach considers audiences and media users as intentional and selective (Rubin, 2009), the context of media use can be specifically tied to outcomes.

Uses and gratification (U&G) is a psychological communication perspective that examines how individuals use mass media, on the assumption that individuals select media and content to fulfil felt needs or wants. This theory was first developed in research on the effectiveness of the radio in the 1940s. Contemporary U&G research is grounded in the following five assumptions: (a) "communication behaviour, including selection and use, is goal directed, purposive, and motivated"; (b) "people take the initiative in selecting and using communication vehicles to satisfy felt needs or desires"; (c) "a host of social and psychological factors mediate people's communication behaviour"; (d) "media compete with other forms of communication (i.e., functional alternatives) for selection, attention, and use to gratify our needs or wants"; and (e) "people are typically more influential than the media in the relationship, but not always" (Rubin, 1994). Five principal elements in the uses and gratification model can be summarized like an individual's social and psychological environment, an individual's needs or motives for communication, functional alternatives to

media selection, communication behaviours and the consequences of one's behaviour. Specifically related to technological convergence, U&G has been used to understand how individuals employ the Internet to meet different goals, based on their socio-psychological disposition (Rubin, 1994). This theory assumes that people are goal oriented and seek out gratification that lead to active media use (McGuire, 1974).

One of the successful theoretical frameworks to examine questions of “how” and “why” individuals use media to satisfy particular needs has been the uses and gratifications (U&G) theory. Herzog (1944) and McGuire (1974) suggested that the U&G theory has been quite successful in understanding consumers' motivations and behaviours in the context of traditional media such as radio and TV. Recent studies have applied the framework to new media (Flanagin, 2005; LaRose, Mastro, & Eastin, 2004; Leung, 2001). Thus, it can be argued that uses and gratification is well suited in new or online media framework also.

The extensive distribution and growth of SNSs, has drawn the attention of researchers, leading to a wide range of studies focusing on uses and social implications of SNSs. In this regard, researchers are using the U&G theory to provide an explanation on what makes this new form of media to be so enticing, what motivated users to join in SNS and the gratifications received from ongoing use. Applying the U&G theory to SNS is of vital importance in today's mass communication research because this form of mass media is relatively new in relation to radio, television, and film (Gallion, 2010) and the appearance of computer mediated communication has brought about the significance of uses and gratification. The perspective of uses and gratification

emphasizes that motives, corresponding media consumption and the needs obtained may vary between individuals (Papacharissi, 2011).

The studies in the field of uses and gratification can be classified into two categories such as studies on gratification obtained and studies examining the motivation for joining social networking sites. In the review of the social networking sites literature, studies done by DiMicco (2008) and Joinson (2008) are related with gratification obtained and scholars like Quan-Haase & Young (2010) are related to the motivations for joining social networking sites. Studies on motivation for using SNS or joining SNS makes us understand that what influences adoption of SNS and what kinds of gratification users hope to obtain from the SNS before they start using it. Whereas studies on gratification obtained from using SNS or joining SNS makes the users understand what would be the outcomes of SNS usage among members of SNS. In addition, to date the most studies in the field of U&G theory have focused on motivations to start using SNS, while they have neglected to explore the obtained gratifications from using SNS. Thus, investigation of the gratification obtained while using SNS is important because it makes it clear what would be the various outcomes of SNS usage to the members.

With the widespread adoption of new media, such as virtual worlds and SNSs, important new research from the U&G perspective is emerging (Ruggiero, 2000). Kaye & Johnson (2002) indicate that findings from the U&G television studies have already been applied in internet research. Scholars' strengthened society's understanding of the U&G theory by making distinction between gratifications obtained and gratifications

sought when they expanded the concept of gratifications (Kink & Hess, 2008). Gratifications obtained refer to those gratifications that audience members actually experience through the use of a particular medium. By contrast, gratifications sought (also often referred to as “needs” or “motives”) refer to those gratifications that audience members expect to obtain from a medium before they have actually come into contact with it. Research shows that gratifications obtained are a better predictor of media use than gratifications sought and that if a medium meets or exceeds the gratifications sought by a user, recurrent use will occur (Palmgreen & Rayburn, 1979).

3.1.2 Social Resource Theory

Much of sociological research focuses on personal resources. While social network analysis has been a long-standing research tradition in sociology and psychology, attention had been given to the structure and patterns of ties and relations. Only recently, in the past two decades, sociologists and anthropologists have explored the theoretical significance of the resources brought to bear in the context of social networks and social ties. The theory of social resources makes explicit the assumption that resources embedded in social connections play important roles in the interaction between social structure and individuals. More specifically, the theory explores how individuals access and use social resources to maintain or promote self-interests in a social structure that consists of social positions hierarchically related and organized in terms of valued resources. It has been argued that social resources are accessed and mobilized in a variety of actions by an individual to achieve instrumental and/or expressive goals.

Attention in this study will be given to the theory of social resources as it is applied to the context of instrumental actions. Instrumental actions are a class of actions motivated by the intent to gain valued resources (e.g., seeking a better occupational position). In contrast, expressive actions are a class of actions motivated by the intent to maintain valued resources (e.g., seeking to maintain a marital relationship). Social resources have broad implications for both types of social actions (Lin, 1999). However, for the present discussion, social resources will be considered in the perspective of instrumental actions only. To carry the discussion at a more concrete level, attention will be given to the status attainment process, which can be seen as a typical process focusing on an instrumental goal.

A review of studies on uses and gratification theory implies that gratification obtained i.e., outcomes of social networking site usage needs to be studied. And the social resource theory suggests the scope of promoting social resources or social relationships while using social networks. Thus, based on the uses and gratification theory and social resource theory, the role of social networking sites in promoting social capital for willingness to collective action is conceptually framed in the following sections with the support of literature.

3.2 Conceptual Model and Hypotheses Development

From the definitions of social capital, it is clear that social networks are considered as the origin of social capital or social relationships. For the study purpose, we assume that individuals build relationship mainly through two types of social interaction:

- a) Using an online social networking strategy, i.e., social capital building through social networking sites.
- b) Through face to face strategy, i.e., social capital building through offline Clubs.

In the first group, individuals develop social ties online at their convenience- for example by staying in touch with friends and acquaintances, or interacting with unknown others. And they meet their contacts whenever they want or have time. In contrast, the second group i.e. face to face strategy, individuals can communicate with members and develop social relationship through face to face encounters when they physically meet them at their Clubs/Associations.

People interact and communicate with others and it is assumed that all interaction involves communication, be it intended or unintended. Interaction can be purposeful, coincidentally random, or forced or constrained by factors external to the actors. Various reasons have been offered for why people interact (e.g., to satisfy social as well as other needs, to obtain desired outcomes, and so forth.) In a general sense, we summarize these reasons by assuming that people interact in order to make sense of, and successfully operate on, their environment. When the interaction is pleasant and helpful in this regard, the interaction continues and a relationship is formed. When the interaction is harmful or unpleasant, a negative relationship is formed, and continued interaction is typically avoided.

According to Robert Putnam (1995; 1999; 2000), it is through experiences of interaction face to face with people from different backgrounds

that we learn to trust each other. The voluntary association represents one of the main arenas for interaction of this type. Associations create networks that allow social trust to spread throughout society. Although Putnam emphasizes both scope and intensity of involvement, it follows from the weight attached to face-to-face interaction that intensity has first priority. Passive membership in several associations is seen as less productive of social capital than active membership in one. Just like this, online interaction also promotes social capital. Online social networking sites such as *Facebook* is considered to be an excellent platform for social capital maintenance and formation. Social networking sites focus on the fact that users maintain a social life beyond the internet and join networks not only to make new acquaintances but to remain in touch with current friends. Online social networks provide a typical environment for the capital to be mobilized through the network, offering shared norms (cognitive dimension) and tie strength (structural dimension) and social trust (He, 2009; Putnam, 1993). According to Uphoff & Wijayaratra (2000) these types of social capital are commonly connected, mutually reinforcing and complementary and there are possibilities for the promotion of mutually beneficial collective action (Krishna & Uphoff, 2002). A number of studies show that the social capital can mediate the effects of other negatively associated behaviours or characteristics (Putnam, 2000). And the research suggests that social capital may have a mediating effect on social stress and poverty by generating a sense of well-being and belonging among individuals. Thus it is assumed that individuals with high levels of intensity of SNS usage exhibit larger amount of social capital such as social trust,

cognitive social capital, bridging and bonding social capital and are more willing to engage in collective action of the common good.

In this study, we chose to use the framework developed by Nahapiet & Ghoshal (1998) who conceptualized social capital using three types: the structural, the relational and the cognitive. The structural aspect refers to the individual's social ties and network of relationships. The relational aspect refers to the assets rooted in the relationships such as trust and trustworthiness. The cognitive aspect reflects the common understandings that consist of shared codes, language, and narratives. We choose this framework because it is almost certainly the most widely used and well established social capital framework. It has been commonly adapted and used in the literature, including in empirical studies (e.g. Chiu, 2006; Robert, 2006; Wasko & Faraj, 2005). As Koroleva (2011) noted, the structural dimension focuses on the availability of resources while the cognitive and relational aspects describe a person's ability to tap into these resources. This study considers all these dimensions of social capital as these are important to study the link between intensity of SNS usage and one's willingness to collective action. In this study structural social capital is captured as an outcome of member's intensive participation in networks. Within structural social capital, a distinction is made between bonding and bridging social capital (Putnam, 2000). Bonding social capital refers to connections between homogeneous groups or individuals, while bridging social capital unites individuals or groups that are dissimilar in terms of characteristics or beliefs, there by bridging social divides.

3.2.1 Intensity of SNS Usage and Social Capital

Social networking sites, such as Twitter, MySpace and *Facebook*, have become popular media for online communication. These sites allow people freely to participate, mediate their own content and interact with others. As such, social capital is potentially produced in online settings, namely digital social capital (Mandarano, Meenar, & Steins, 2011). Rau, Gao & Ding (2008) found that people join SNS to develop and maintain relationships. Wellman (2001) found that Internet could help to increase two forms of social capital: (1) *Network Capital* – interpersonal connectivity and (2) *Participatory Capital* – organizational involvement. Similarly, Shah, Kwak, & Holbert (2001) found that overall internet use was positively related to social capital, in term of civic engagement and interpersonal trust.

Social capital is a resource based on trust and shared values, and develops from the weaving together of people in communities. Individuals with a large and diverse network of contacts are thought to have more social capital than individuals with small, less diverse networks (Sebastian Valenzuela, Namsu Park & Kerk, 2008). For the study purpose, structural social capital is conceptualized as bridging social capital and bonding social capital. Social capital benefits are strongly related to the intensity with which social media are used and more active users see greater perceived levels of bridging and bonding social capital (Johnston, Tanner, Lalla, & Kawalski, 2011). Thus, it is argued that intensity of SNS usage significantly influences relational aspects, structural social capital and cognitive social capital.

3.2.1.1 Intensity of SNS Usage and Bridging Social Capital

Steinfeld, Ellison, & Lampe (2008) found that *Facebook* increased bridging social capital by building and maintaining weak ties among groups of distant friends and acquaintances. Ye (2012) found that social capital could be transferred from real world to virtual one in case of Twitter. On the other way, virtual communities were also found to help increase offline social capital (Kobayashi, Ikeda, & Miyata, 2006). Social use of the technology can also increase the number of instrumental ties in a person's network (Burt, 1992) because of their access to a larger pool of socially dissimilar individuals who belong to different communal worlds (Constant, 1996; Wellman, 2001). Likewise, this technology allows chance connections between individuals to occur and bridging ties to emerge at work (Ellison, 2007; Burke, 2010).

Recently, researchers have emphasized the importance of internet based linkages for the formation of weak ties, which serve as the foundation of bridging social capital. Because online relationships may be supported by technologies like distribution lists, photo directories, and search capabilities (Resnick, 2001), it is possible that new forms of social capital and relationship building will occur in online social network sites. Bridging social capital might be augmented by such sites, which support loose social ties, allowing users to create and maintain larger, diffuse networks of relationships from which they could potentially draw resources (Donath & Boyd, 2004; Resnick, 2001; Wellman, 2001). Donath & Boyd (2004) hypothesize that SNSs could greatly increase the weak ties one could form and maintain, because the technology is well-suited to maintaining such ties cheaply and easily. Previous research has established a positive relationship

between both total friend count (Burke, 2010) and the number of “actual” friends on *Facebook* (Ellison, 2011) and bridging social capital. In this context, it is assumed that intensity of SNS usage has a positive influence on bridging social capital. So, the following hypothesis is formulated:

Hypothesis: “Intensity of SNS usage significantly influences bridging social capital.”

3.2.1.2 Intensity of SNS Usage and Bonding Social Capital

As many studies have shown, SNS use helps to form both bonding and bridging social capital (e.g. Brandtzæg, 2012; Burke, Marlow, & Lento, 2010; Hampton, 2011; Lee & Lee, 2010; Steinfield, 2008) because this form of online interaction facilitates building and maintaining large numbers of both strong and weak ties (Ellison, Lampe, & Steinfield, 2007; Stefanone, Kwon, & Lackaff, 2011). The positive usage of SNS contributes towards greater feelings of bonding social capital and lower loneliness is illustrated by Burke, Marlow & Lento (2010).

In Putnam’s (2000) view, bonding social capital reflects strong ties with family and close friends, who might be in a position to provide emotional support or access to scarce resources. Williams (2006) points out that little empirical work has explicitly examined the effects of the internet on bonding social capital, although some studies have questioned whether the internet supplements or supplants strong ties (Bargh & McKenna, 2004). *Facebook* contains a number of features that support relationship maintenance behaviors among close friends, which, in turn, could enable individuals to accrue bonding social capital. For example, *Facebook*’s numerous communication channels (e.g., status updates, wall posts, inbox messages, chat) reduce the coordination

costs associated with interacting both directly and indirectly with individuals and groups of users. These features may be helpful for individuals looking for some forms of support, such as advice about a big decision, and for engaging in generalized reciprocity by responding to others' requests.

Two social capital dimensions of perceived bridging and bonding present different roles in building users' continued intention to use SNSs (Chang & Zhu, 2012; Lee, 2011; Liu, 2011). Moreover, a conceptualization of the contrasting constructs regarding bridging and bonding of social capital has gained broad acceptability in the context of SNSs (Ellison, 2007). Since social capital consists of emotional and informational resources accumulated through interactions with strong (e.g., bonding social capital) or weak social network ties (e.g., bridging social capital), SNSs can be beneficial tools for users to gain social capital (Lin, 2001). Hence, the following hypothesis is proposed:

Hypothesis: “Intensity of SNS usage significantly influences bonding social capital.”

3.2.1.3 Intensity of SNS Usage and Cognitive Social Capital

Shared norms represent a degree of consensus in the social system and reflect the commonalities among online SNS users (Coleman, 1990). Shared norms shape online SNS users' thinking and behaviour, and evolve into stronger communication and interaction among online SNS users (He, 2009). Shared norms generate propositional attitudes that positively affect the users' satisfaction toward online SNS and their online SNS continuance intention. In this study, the cognitive social capital is treated as shared vision which is emerged as a state that develops when the members of social network

have access to same networks, same information and share same SNS tools. Thus, it is proposed that intensity of SNS usage is related with cognitive social capital assuming that one's intensive use of SNS, promotes shared vision among networking members. So, the following proposition seems to be appropriate:

Hypothesis: “Intensity of SNS usage significantly influences cognitive social capital.”

3.2.1.4 Intensity of SNS Usage and Social Trust

Trust refers to the belief in good intent, competence, and reliability of other online SNS users regarding their activities and of the online social network platform service provider (Dinev & Hart, 2006; Mishra, 1996). Some scholars advocated one of the most appealing features of a SNS is its ability to build trusted relationships among the users (e.g. Lin & Lu, 2011), and some other scholars emphasized the importance of the SNS users' trust on online social network platform service provider (e.g. Sledgianowski & Kulviwat, 2009). In online community, individuals possess the confidence to interact with others, make new friends and establish a good sense of social trust among those with whom they interact (Sheng YiWu, 2012). When the users trust other users and the online SNS service provider, they will increase satisfaction and be intrinsically motivated to continue using that SNS (Deng, 2010; Sledgianowski & Kulviwat, 2009). In an online SNS usage context, stronger relationships can usually encourage users to keep the communication and interaction with other users more frequently and extensively via online SNS, and hence are important to users' continuance intention toward the online SNS (He, 2009; Levin & Cross, 2004). Use of SNSs prove to be excellent platforms for self-disclosure which is important

for young adults to form strong bonds with friends and for emotional support, trust, loyalty and sharing with intimate others (Radmacher & Azmitia, 2006).

Associational involvement will be particularly powerful in generating outcomes such as social trust (Molenaers, 2003; Stolle, 2003). Furthermore, it is suspected that a willingness to share; both with technology and face-to-face facilitates the establishment of trust between members of the group. In organizational setting, knowledge sharing via technology today is often done as a means of organizational interaction. The willingness to share will increase organizational trust of the group members because the group members see the seriousness and willingness of other group members. Willingness to share among organizational members of the group can make knowledge obtaining feasible through organizational trust.

In everyday face to face interactions, trust is a critical determinant for sharing information and developing new relationships (Coppola, 2004; Jarvenpaa, 1998; Piccoli & Ives, 2003). It has also been hypothesized and demonstrated in the online social networking literature that trust is a critically important variable in relationship. Thus, this study proposes that intensity of SNS usage is positively related with social trust. Therefore, the following hypothesis has been formulated:

Hypothesis: “Intensity of SNS usage significantly influences social trust.”

3.2.2 Social Trust and Bridging/Bonding Social Capital

Social capital research in sociology (Burt, 1992) has been strongly influenced by network theorists, and bridging view of social capital is

reflected in the network analysis. The bridging view of social capital focus on the resource located in the external linkages of a focal actor, but in bonding view, the focus is on collective actor's internal characteristics. Coleman (1988) argues that closure of the network structure i.e., the extent to which actor's contacts is themselves connected, facilitates the emergence of effective norms and maintains the trustworthiness of others, thereby strengthening social capital. In an open structure, the possibility of violation of norms are more and people will be less trusting of one another, leads to weakening social capital.

Trust is needed to build social capital, and can also be an outcome of it. If we can trust that other people mean what they say, and that they will do what they say they will (without having to wait for demand or proof), then this will save us time and energy. Ostrom & Walker (2003) claim that communication in online or virtual networks, that lack the face-to-face interactions needed to build robust trust, will be much less efficient than offline communication where face-to-face interactions occur. However, social networking site helps to make social capital more tangible, strengthening our ties and keeping these connections going when individuals are not face to face. Relationships that are created and supported through online interaction allow people to understand each other better and have more trust in one another. This trust can be built through frequent, modest interactions, such as Twitter or *Facebook* status updates, or less frequent but more intensive interactions, like blog exchanges or video conversations and through intensive use of SNS. The trust developed in relationships built online does not hold the same value as the trust in face-to face relationships, which is usually earned through years of shared experiences and values. Although it

is difficult to build the same level of trust in online virtual networks, social media employs a conversation that keeps online users constantly engaged with one another. Through social support and shared values, others assume that they “know” the individual, or their online identity, better through the connections made from what is posted online. Ultimately, the relationships built online help to supplement offline relationships by not only satisfying the needs that they are unable to fulfil with face-to-face interactions, but eliminating the spatial barriers between individuals as well (Shah , 2001).

Sheng Yi Wu (2012) have found out that the social self-efficacy has a positive influence on social trust, (indicating that in an online community, individuals possess the confidence to interact with others, make new friends, and establish a good sense of social trust among those with whom they interact); social trust has a positive influence on social capital and social trust mediates the relationship between social efficacy and social capital. In this context, this study anticipate that social trust mediates the relationship between (a) intensity of SNS usage and bridging social capital and (b) intensity of SNS usage and bonding social capital. The above discussion leads to the following hypothesis:

Hypothesis: “Social trust mediates the relationship between intensity of SNS usage and bridging/bonding social capital.”

3.2.3 Social Capital and Collective Action

Social capital is one of the important social conditions that can facilitate solutions to the logic of collective action. Putnam (1993) presented social capital as a solution to the dilemmas of collective action. It is increasingly well established that social capital is an important factor in

building and maintaining collective action (Krishna & Uphoff, 1998; Pretty, 2003; Pretty & Ward, 2001; Putnam, Leonardi, & Nanetti, 1993; Woolcock, 1998).

In a broader, analytical sense, application of the social capital framework in the study of the management of collective issues is useful because it includes networks (both formal and informal), including users' groups, as the structural social capital facilitating collective action (Uphoff, 2000; Pretty, 2002); and various formal and informal norms and institutions (such as norms of reciprocity, trust) as the cognitive social capital which predisposes groups to cooperation and collective action (Uphoff, 2000). Structural social capital facilitates mutually beneficial collective action through established roles and social networks supplemented by rules, procedures and precedents (Hitt, 2002).

Social capital increases commitment to the networked relationships and the ability to mobilize people to collective action (Larsen, 2004; Ellison, 2007). In terms of weak-ties, linkage to external assets and information diffusion benefits relationships (Putnam, 2000). Although bridging social capital is based on weakly tied, tentative relationships, it may broaden views or give opportunities to acquire new information and resources (Putnam, 2000; Williams, 2006). Bridging social capital based on weak-ties is an important asset for social movements due to its ability to expand mobilization potential (Walgrave, 2008). Therefore, in terms of social movements through social media, bridging social capital may play an important role because internet-based weak-ties have the advantage of attracting a large number of people easily and quickly (Jeroen & Van Aelst,

2010). Even if bridging social capital does not assure deep and emotional support, users are able to gain the benefits, understand various world views, and get more information from the network, which is hardly gained by maintaining only existing relationships. Cognitive social capital, which includes shared norms, values, attitudes, and beliefs, predisposes people towards mutually beneficial collective action (Krishna & Uphoff, 1999).

Beaudoin & Thorson (2007) studied the relationship between the use of mass media, social capital, and social participation, finding that social capital was closely related to social participation as a pro-social behaviour. Combining multiple types of social capital, rather than attempting to increase one type alone, can be useful in resolving public problems and enhancing wellbeing (Woolcock & Sweetser, 2001; Pretty, 2003).

The variable trust is determinate for the collective action and cooperation (Gordon, 2005; Ablanedo, Layton & Moreno, 2008) proper to the higher levels of compromise and participation that generates their members inside of a determinate community (Newton, 2001), as well as for the volunteer contribution of their integrants (Carpenter & Daniere Y Takahashi, 2004). Furthermore, Putnam (2000) determine that the social interaction (solidarity) is the one that facility the learning of attitudes and cooperative behaviours for the development of the trust of the members of a community. Also, the trust and solidarity that perceive the members of a community generates a higher level of cohesion and social inclusion (Oxoby, 2009). The social links of trust allow reinforce the collective action. There is an emerging recognition that relations of trust and common

values are important to collective action (Harris & Renzo, 1997; Lyon, 2000; Pretty & Ward, 2001; Uphoff, 2000).

It is noted that social capital is an important factor in building and maintaining collective action (Krishna & Uphoff, 1998; Pretty, 2003; Pretty & Ward, 2001; Putnam, Leonardi, & Nanetti, 1993; Scoones, 1998; Woolcock, 1998). While cognitive social capital could predispose people towards cooperative behaviours thus enforcing collective efficacy and collective action (Hurtado, 2011), structural social capital could facilitate collective management of common environmental resources, grassroots' accountability, capacity building and mobilization. The contribution of the concept social capital is basing in the explanation of social relations, with base on the framework of the collective action that develop a determinate society (Ostrom, 2003).

On the individual level, collective action logic emphasizes the role of social network relationships and connections as informal preconditions for more centralized mobilization (e.g. in forming and spreading action frames, and forging common identifications and relations of solidarity and trust). A certain level of trust and collective identification that results from face-to-face interaction is necessary to convince people to participate in protests or other 'potentially high-risk activities' (Diani, 2000).

Internet's ability to cross distances and time barriers to create communities and mobilize people for offline activism. It is to be noted that online social media sites are seen as an essential part of activism in countries like United States and Latin America. While some have claimed that the ease of using SNS for activism somehow lessens the importance of online activism, studies found that respondents who consider themselves to

be mostly online activists participate in offline activist actions just as often as those who said their activism occurs mostly offline. Such a finding contradicts the notion that online activists just sit behind a computer, click that they ‘like’ a particular cause, and their activism ends there. This is significant in the context of previous research that illustrates how SNS can strengthen ties. It also suggests that through SNS, collective identities are established or strengthened, and that this strengthened tie to an imagined community leads to a more committed membership, thus potentially forming the relationships needed to prompt and sustain collective action. Hence, this study concentrates on the offline collective action in order to standardize the measures for both online and offline members of social networks. And the same measurement items were used for studying one’s willingness to collective action across online and offline social networks because a comparative approach was planned for the analysis. Thus, this study hypothesizes willingness to collective action as an outcome of bridging social capital, bonding social capital, social trust and cognitive social capital. This brings the following hypothesis:

Hypothesis: “Bridging social capital/bonding social capital/cognitive social capital and social trust significantly influence willingness to collective action.”

3.2.4 Socio-demographic Variables

Individuals between the ages of 12 and 32 are more likely to use SNSs and to create profiles and to partake in the virtual spheres (Jones & Fox, 2009). This group is further narrowed by a study conducted by Lenhart (2009) which states that Generation Y can be reduced to a smaller group – 18-24 years. Higher usage patterns are evidenced for those at higher income

levels, at younger ages, living in urban areas, and with greater levels of educational attainment (Duggan, Ellison, Lampe, Lenhart, & Madden, 2014). Age plays an important role in social capital production as it is related to internet use among Generation X, but to television among Baby Boomers and newspapers among the Civic Generation (Shah, Kwak, & Holbert, 2001). Besides, teenagers tend to have a higher quantity of social capital whereas older people have more diversity (Pfeil, Arjan, & Zaphiris, 2009).

Historically, many rural areas have shown lower levels of adoption of digital technologies in comparison with their urban counterparts (Hansson, 2007; Warren, 2007) and have lower levels of digital competence than urban areas (Galloway & Mochrie, 2005). This forms part of a phenomenon known as the digital divide – the division in society in terms of how different groups access and adopt digital technologies (Warren, 2007). The digital divide has been associated with demographic characteristics of rurality such as low income, low educational levels and ageing populations (Leatherman, 2000) although this may be changing due to middle-class in-migration (Bosworth & Willett, 2011; McGranahan, 2011). A further issue impacting on the digital divide is that historically, the availability of internet access in rural areas has been well below what has been made available in urban areas in terms of upload and down-load speeds (Townsend, 2013).

Hargittai (2007) noted that the use of *Facebook* use varies according to the user's gender, race, and ethnicity, and parental educational background and that more than men used *Facebook*. He also examined the difference in *Facebook* use across cultures, including the UK, US, Italy, Greece and

France found there were cultural differences among users. Moore (2012) found out that persons with lower education might have access to a lower quantity and quality of network resources than those with higher education.

Basically, some authors tend to emphasize the role of individual factors in determining the incentive of individuals to invest in social capital, such as personal income and education, family and social status. At the individual level, social capital is influenced by a wide range of socio-economic and contextual factors. Among them, income and education seem to be most influential. Empirical evidence shows that higher levels of income and education coincide with a strong probability for interpersonal trust and group membership from the part of the individual (Knack & Keefer, 1997; Denny, 2003; Helliwell & Putnam, 1999; Paldam, 2000). Concerning trust, the empirical results are varying. Halman & Luijkx (2006) showed that trust is statistically significantly and positively influenced by education, while Oorschot (2005) found the same effect to be negative.

The review of studies on socio-demographic variables show that early researchers considered socio-demographic features as an important variable while studying the concept of social capital, social networking sites and willingness to collective action. Thus, this study proposes to look into the possible relationship between socio-demographic variables and Willingness to collective action among networking members. Hence, the following hypothesis is proposed:

Hypothesis: “There exist significant difference in willingness to collective action across gender, age group, location, etc.”

3.2.5 Moderating Role of Personality Traits

The literature on social media suggests that personality traits play an important role in the determination of SNS usage and social capital of the members of social networks. Social networking sites such as *Facebook*, twitter and Myspace offer different features to the users, but each of these sources allow users to make connections based on their profile, usage and connections with others to expand their network. By focusing on social network as they relate to social capital, this study aims to explore how social networking sites usage characteristics related with social capital. Hence it will be meaningful if the Big Five dimensions are analyzed in the current study.

Devaraj (2008) studied personality variables and found that personality traits such as agreeableness, extraversion and conscientiousness positively associated with Perceived usefulness. He also added that these variables moderate the relationship between Perceived usefulness and Intension to use a new technology.

This study builds upon prior research addressing stability of one's personality as part of what makes a person unique and how one's personality impacts one's behaviour (Caspi & Roberes, 2001; Digman, 1990). This study tries to add to the existing literature showing the link between intensity of social networking site usage and social capital, and address in literature examining the behaviour by which personality influences this link. Therefore, the following hypothesis has been formulated:

Hypothesis: "Personality traits moderate the relationship between intensity of SNS usage and social capital."

3.2.6 Comparing Online and Offline Social Capital

It is clear that the internet facilitates new connections, in that it provides people with an alternative way to connect with others who share their interests or relational goals (Ellison, Heino, & Gibbs, 2006; Horrigan, 2002; Parks & Floyd, 1996). These new connections may result in an increase in social capital; for instance, Pew Internet survey of 2006 reports that online users are more likely to have a larger network of close ties than non-internet users, and that internet users are more likely than non-users to receive help from core network members (Boase, Horrigan, Wellman, & Rainie, 2006). However, it is unclear how social capital formation occurs in online and offline connections are closely coupled, as with *Facebook*. Williams (2006) argues that although researchers have examined potential losses of social capital in offline communities due to increased internet use, they have not adequately explored online gains that might compensate for this. And he added that social capital developed differently in online and offline settings.

Thus this study tries to compare the conceptual relationship between intensity of Social network usage, social capital and one's willingness to collective action with the members of Clubs/Association also by replicating the conceptual model among members of offline social network.

The proposed relationship between variables under the study discussed in the light of literature is depicted in the following figure. The proposed conceptual model is shown in figure 3.1. The diagram shows that Intensity of SNS usage is the independent variable and willingness to collective action as dependent variable. Bridging social capital, bonding

social capital, social trust and cognitive social capital are the outcome of Intensity of SNS usage. And the willingness to collective action is influenced with bridging social capital, bonding social capital, cognitive social capital and social trust. It is also evident that social trust mediate the relationship between intensity of SNS usage and bridging social capital and bonding social capital. Furthermore, personality traits are proposed as moderators on the relationship between intensity of Social Networking Site usage and Social Capital.

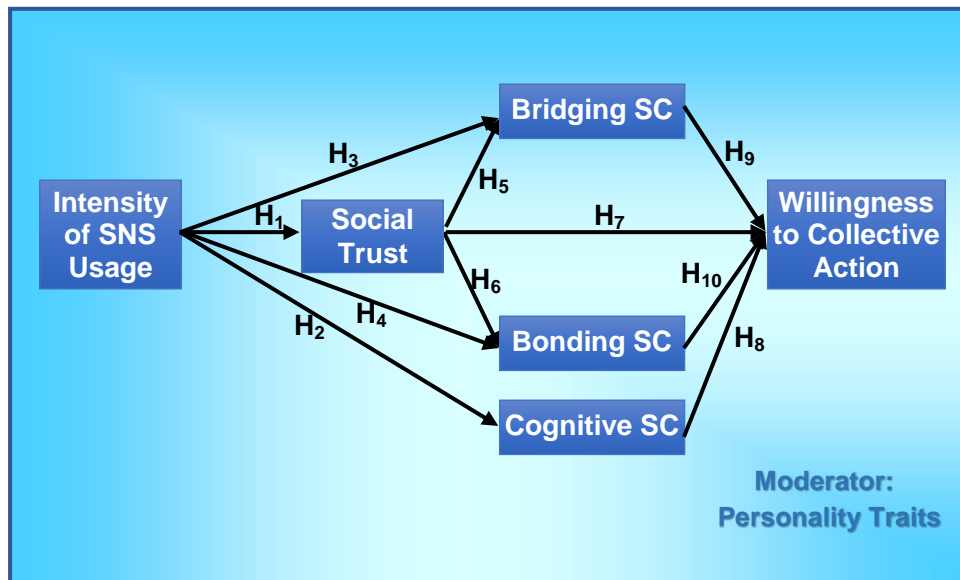


Fig. 3.1: Conceptual Model Linking Intensity of SNS Usage, Social Capital and Willingness to Collective Action

3.3 Chapter Summary

This chapter dealt with the conceptual framework developed for the study. It discussed uses and gratification theory and social resource theory in detail to get a theoretical background of the study. Various studies

linking variables under the study were presented. And finally, a conceptual framework was proposed for the study. The proposed relationship between variables i.e., intensity of SNS usage, social capital and willingness to collective action were discussed in the light of supporting literature.

.....

Chapter 4

RESEARCH METHODOLOGY

<i>C o n t e n t s</i>	4.1 <i>Rationale of the Study</i>
	4.2 <i>Statement of the Problem</i>
	4.3 <i>Objectives of the Study</i>
	4.4 <i>Variables in the Study</i>
	4.5 <i>Scope of the study</i>
	4.6 <i>Hypotheses</i>
	4.7 <i>Research Design</i>
	4.8 <i>Sample Design</i>
	4.9 <i>Instruments for Measurement of Variables</i>
	4.10 <i>Data Collection Method</i>
	4.11 <i>Structure of Questionnaire</i>
	4.12 <i>Pre-testing and Pilot study</i>
	4.13 <i>Reliability and Exploratory Factor Analysis</i>
	4.14 <i>Chapter Summary</i>

This chapter discusses the research methodology followed in the study. Objectives of the study, hypotheses, variable under the study, research design and sample design are discussed and finally the tools of data collection and the results of pilot study are presented.

4.1 Rationale of the Study

Early researchers on the internet assumed that spending more time online translated into less time spent on social activities, thus reducing one's ability to build and maintain social capital (Kraut, 1996; Nie & Erbring, 2002). But this time-displacement argument has changed now with the introduction of social media, especially social networking sites. Social networking sites such as *Facebook* and *Google plus* has proved its significant role in social relation maintenance and participation in social activities since these sites provide a platform for the members to come together online and participate in any form of social interaction. As the number of users of social media and social networking sites are increasing day by day, the researchers in the field of social media and social capital suggest the possibility of new forms of social capital and relationship building through these sites. Scholars have also agreed that as social media become integrated into the individual lives, we will continue to see its impact on offline and online social connections. Studies done on the areas of social media and social capital show that user who have the ability and inclination to engage in social media activities may be more likely to reap social capital benefits. Researchers have also suggested that new forms of social capital and relationship building will occur in social media due to the way that new technologies like distribution lists, photo directories and search capabilities support online linkages with other. As researchers started to explore the possibilities the social media for building social capital among users, this study contributes to the literature of social media by adding its significant role in social capital maintenance and participation in social activities. Since, the connections or relationships among people are shifting from

offline to online, this study tries to compare the relationship building or social capital development among both offline and online social networking members.

4.2 Statement of the Problem

Before the advent of social media and social networking sites, membership and participation in clubs and associations were seen as adequate and beneficial for social capital building and participation in social activities. But with the introduction of social media and social networking sites such as *Facebook* and Google Plus, social interaction has shifted from offline connections to online connections. Over the last decade, social networking sites like *Facebook* have become a central, virtually unavoidable medium for social interactions, which has attracted considerable attention not only in the field of communication, but also psychology, business, sociology and information technologies (Zhang, 2013). Although there are many studies which explored the functions and motives of social media use, those studies were conducted in western context. Thus, the research has yet to investigate the role of social media in social capital building in Indian context. Thus the research problem is to investigate the influence of social networking site usage on the social capital among networking members and how the social capital is related with one's willingness to collective action by distinguishing between online social networks and offline social networks. As online social networking phenomena has already entered the daily lives of people in India, it is necessary to conduct a study among the Indians to know how these social networking sites contribute to their relationship maintenance. This study tries to fill the gap in research in Indian context by linking social

networking site usage or participation in Clubs/Associations and social capital.

4.3 Objectives of the Study

Intensity of social networking site usage and its influence on social capital is the main focus of the study. The relationship between social capital (bridging social capital, bonding social capital and cognitive social capital) and one's willingness to collective action are examined among online (*Facebook*) and offline (Clubs/Associations) social networking members.

In order to achieve this primary objective, the following specific objectives were stated:

- To analyze the influence of intensity social networking site usage on social capital.
- To study the relationship between social capital and willingness to collective action.
- To depict the role of online and offline social networks in building social capital.
- To study the effect of personality traits on the relationship between intensity of social networking site usage and social capital.
- To analyze the effect of socio-demographic variables on willingness to collective action
- To statistically test a model linking intensity of social networking site usage and social capital and willingness to collective action.

4.4 Variables in the Study

The theoretical and operational definitions of variables in the study are given below:

4.4.1 Intensity of Social Networking Site Usage

Social Networking Site Usage refers to one's use of social networking sites such as *Facebook*, *Google Plus*, etc. Social networking site usage operationally defined as one's membership in particular social networking site and intensity of use. Membership in social networking sites refers to one's membership in an active account on social networking site. Intensity of use refers to one's emotional connectedness to the social networking site, time spend on online networks, number of online friends and its integration into daily lives of individual.

a) Membership in Online Social Networks

Membership in Online social networks refers to one's membership in any of the Social Networking Sites like *Facebook*, *LinkedIn*, *Google Plus* and *Twitter*.

b) Intensity of Use

Intensity of use refers to one's emotional connectedness to the social networking site and its integration into daily lives of individuals. It was measured by a scale developed by Ellison et al. (2007), which contained 7 statements for measuring the emotional connectedness to the site and two items indicating the number of online friends on *Facebook* and time spend on *Facebook*.

4.4.2 Intensity of Participation in Clubs and Associations

A club means any community or society consisting of not less than twenty five members who assemble or meet together in pursuit of a common object. Membership in Club or Association refers to one's membership in that Club/ Association. Intensity of participation refers to one's emotional attachment to the Club/Association and its integration into daily lives of individuals.

a) Membership in Clubs and Associations

Membership in clubs and associations refers to one's membership in any of the following: Neighbourhood/Residents Association, Professional Associations, Trade Union or Labour union, Education Group, Traders or Business Association, Religious or community group, NGO or Civic group, Sports group and Youth group.

b) Intensity of Participation

Intensity of involvement refers to one's emotional attachment to the Club/Association and its integration into daily lives of individuals. It was measured on a scale developed by Smith et al. (1997) and two items indicating the number of contacts and time spent on activities on Club/Association.

4.4.3 Social Trust

Fukuyama (1995) defined trust as “the expectation that arises within a community of regular, honest, and co-operative behavior based on commonly shared norms, on the part of other members of the community”. Trust is defined as the expectation that the other party will act predictably, will fulfil its obligations, and will behave fairly even when the possibility of opportunism

is present. Social Trust is operationally defined as the belief that other members of social network will act fairly even when the possibility of opportunism is present.

4.4.4 Bridging Social Capital

According to Putnam (2000) the bridging social capital takes place when actors from different backgrounds make connections among different social network structures. Bridging social capital in this study operationally defined as the relationships that provide individuals with access to information and ones contact with broader range of people. Bridging social capital is the relationships that are not based on emotional ties. Bridging social capital also known as weak ties refers to beneficial relationships that are not based upon strong emotional ties. However, these relationships provide individuals with access to new information otherwise unknown by their close family and friends (Granovetter, 1982).

4.4.5 Bonding Social Capital

Bonding social capital, also known as strong ties, refers to beneficial relationships among family and friends that produce a strong emotional connection and result in emotional support (Granovetter, 1982). Bonding social capital in the study operationally defined as relationship characterized by emotional support and access to scarce resources.

4.4.6 Cognitive Social Capital

Cognitive social capital refers to the resources that provide shared representations, interpretations, and systems of meaning among individuals such as shared vision (Nahapiet & Ghoshal, 1998). Cognitive social capital

is operationally defines as the relationship characterized by shared vision or values and shared language and codes among networking members.

4.4.7 Willingness to Collective Action

According to Tajfel & Turner (1979) collective action includes all actions aimed at improving certain conditions, the status, the power or the influence of a group. Willingness to collective action is operationally defined as ones readiness to perform various activities for improving certain conditions, the status and power or the influence of a group in order to fight against a social issue.

4.4.8 Personality Traits

Three of the Big-5 personality characteristics (extraversion, agreeableness, and conscientiousness) are taken as control variables based on prior research findings that some aspects of personality are predictive of the development of network ties (Baer, 2010; Dougherty, Cheung, & Florea, 2008). Extraversion refers to the extent to which individuals are outgoing, active, sociable, assertive, expressive, flexible and peaceful (Costa & McCrae, 1995). Agreeableness refers to the extent to which an individual tend to be courteous, kind, flexible and inclined to cooperate with others. Conscientiousness refers to “the extent to which an individual is dependable, careful, and responsible, organized, and has a high will to achieve” (Wehrli, 2008).

4.4.9 Demographic Variables of the Respondents

The researcher also collected information regarding the gender, age, marital status, educational qualification, religion, location, occupation, designation and the income of the respondents.

4.5 Scope of the Study

Population:

The population is defined as the members of social networks (both online social networks like *Facebook* and offline social networks like clubs and associations) from Kerala. Unit of observation are the members of social networks who have been a member in that social network for a period not less than 1 year.

Place of Study:

The study was conducted in the State of Kerala, India.

Period of the Study:

The period of data collection was from April 2015 to September 2015.

Data Sources:

Major source of data was primary in nature. It was collected from the members of both online and offline social networks.

4.6 Hypotheses

Based on literature, the researcher has formulated the following hypotheses on the anticipated relationship among the variables in the study:

H1: Intensity of social networking site usage significantly influences social trust.

H2: Intensity of social networking site significantly influences cognitive social capital.

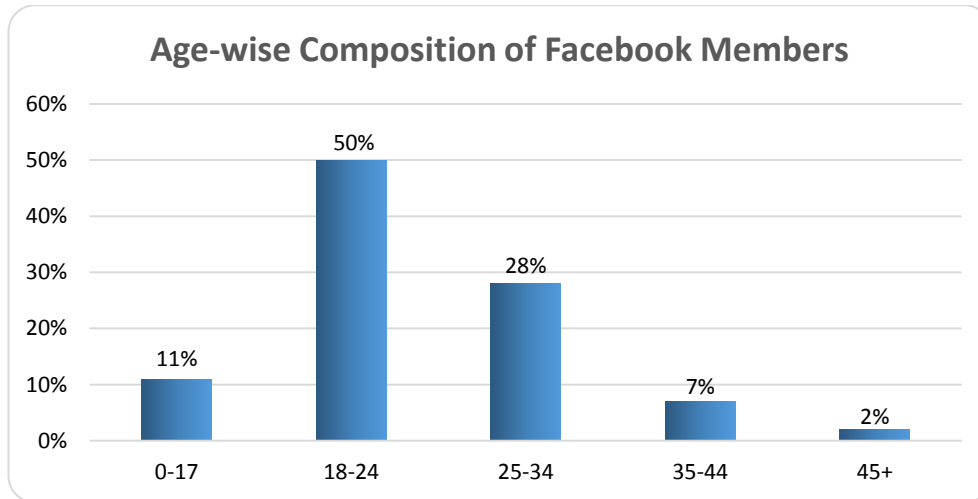
- H3: Intensity of social networking site usage significantly influences bridging social capital.
- H4: Intensity of social networking site usage significantly influences bonding social capital.
- H5: Social trust has significant relationship with bridging social capital.
- H6: Social trust has significant relationship with bonding social capital
- H7: Social trust has significant relationship with willingness to collective action.
- H8: Cognitive social capital has significant relationship with willingness to collective action.
- H9: Bridging social capital has significant relationship with willingness to collective action.
- H10: Bonding social capital has significant relationship with willingness to collective action.
- H11: There exists significant difference in willingness to collective action across age groups, gender etc.
- H12: Social trust mediates the relationship between intensity of social networking site usage and bridging social capital.
- H13: Social trust mediates the relationship between intensity of social networking site usage and bonding social capital.
- H14: Personality traits moderate the relationship between intensity of social networking site usage and social capital.

4.7 Research Design

The study describes how the social networks (online and offline) influence the social capital and thereby one's willingness to collective action. Thus, the researcher tries to explain how the two constructs namely intensity of participation in social networks and social capital are linked to willingness to collective action. So the research design is explanatory in nature.

4.8 Sample Design

As the population of the study is finite but the exact number is not available, it is very difficult to formulate sampling frame for the study. Hence, the researcher resorted to apply one of the non-probability sampling methods, i.e., Quota Sampling in order to create a sample that is a representative of the population being studied. As age group is one of the most important factor while studying social networking site usage, age is taken as the relevant stratification criteria for dividing the population into quotas. Statistics on SNS usage among Indians as on 2014 shows that 50% of the users of SNS come under the age group of 18-24 range; 28% under the age group of 25-34 range; 11% of the users under the 0-17 age group and 11% above 35 years. By keeping age groups as control variable similar quotas were fixed upon for sample selection. The same quotas and sample size were decided for offline social networking members also.



Source: <https://www.statista.com>

Fig. 4.1: Facebook User Demographic in India as on 2014

Table 4.1: Sample Size based on Quota

Control Variable (Age Groups)	Population Composition	Sample Composition	
	Percentage	Percentage	Number
0-17	11	11	55
18-24	50	50	250
25-34	28	28	140
Above 35 years	11	11	55
Sample Size			500

4.9 Instruments for Measurement of Variables

Standardized scales are adopted and used for collecting information about variables under the study. The following instruments were used for the measurement of variables under the study.

Social Networking Site Usage: Social networking site usage was measured by adapting the Facebook Intensity Scale by Ellison (2007). The scale contains seven measurement items like “*Facebook* is part of my everyday activity”, “I am proud to tell people I am on *Facebook*” etc. All the items were measured on a 5 point Likert scale (1= strongly disagree to 5= strongly agree). And two items indicating number of online friends and time spent on *Facebook*.

Membership in Offline Clubs/Association: Membership in offline groups was measured by adapting the Pride in Group Membership Scale by Smith et al. (1997). And two items indicating number of contacts and time spent on Club/Association.

Bridging Social Capital: Bridging social capital was measured using items from William’s Social Capital Scale (2006). The scale contains 10 items including “Interacting with people on *Facebook* makes me feel like part of a greater community”, “Interacting with people on social network gives me new people to talk to” etc. Participants responded to the statements on a 5 point Likert scale (1= strongly disagree to 5= strongly agree).

Bonding Social Capital: Bonding social capital was measured using items from William’s Social Capital Scale (2006). The scale contains 9 items. Participants responded to the statements on a 5 point Likert scale (1= strongly disagree to 5= strongly agree).

Cognitive Social Capital: Cognitive social capital was measured by combining the items from Huang et al. (2011). The scale included 7 items. All the items are measured on a five point scale ranging from 1=strongly disagree to 5= strongly agree.

Social Trust: Social trust was measured with the combined items of Huang et al. (2011) and General Trust scale. There are five indicators for measuring the variable social trust. All the items are measured on a five point scale ranging from 1= strongly disagree to 5= strongly agree.

Willingness to Collective Action: Willingness to collective action was measured with items assessing ones willingness to partake in various activities. The scale items were taken from Van Zomeren et al. (2004) and Tausch et al. (2011). There are 8 measurement items. All the items are measured on a five point scale ranging from 1= strongly disagree to 5= strongly agree.

Personality Traits: Three of the Big Five Personality Inventory (Extraversion, Agreeableness and Conscientiousness) were measured with items from Goldberg (1993). There are 26 measurement items in total for measuring all the three personality traits; 8 measurement items for Extraversion, 9 items for Agreeableness and 9 items for Conscientiousness.

Table 4.2: Instruments for Measurement of Variables

Variable under the Study	Source	Number of Items
Social Networking Site Usage	Ellison et al. (2007)	9
Participation in Clubs/Associations	Smith et al. (1997)	9
Social Trust	Huang et al. (2011)	5
Bridging Social Capital	Williams (2006)	10
Bonding Social Capital	Williams (2006)	9
Cognitive Social Capital	Huang et al. (2011)	7
Willingness to Collective Action	Zomeren et al. (2004) & Tausch et al. (2011)	8
Personality Traits:		
(i) <i>Extraversion</i>	(i) Goldberg (1993)	8
(ii) <i>Agreeableness</i>	(ii) Goldberg (1993)	9
(iii) <i>Conscientiousness</i>	(iii) Goldberg (1993)	9

4.10 Data Collection Method

Survey approach was adopted using a structured questionnaire. Questionnaires were administered through direct and indirect methods. Direct method include face to face administration of questionnaire to the respondents and indirect method was through online sources such as mail survey by using Google forms)

4.11 Structure of Questionnaire

Questionnaire method was used for the data collection. Respondents were the individuals who have membership in online social networks such as *Facebook* and offline social networks such as Clubs and Associations. The questionnaire consisted of 88 items (Online) and 86 items (Offline), divided into 5 sections.

Section A covered the demographic profile of the respondents, Section B included questions relating to Social Networking Site usage, Sections C included questions related to personality traits of the respondents wherein they are asked to indicate their agreement or disagreement with the items provided to them, Section D covered items on Social capital measurement and Social trust and Section E included questions on collective action.

Table 4.3: Structure of Questionnaire: Online Category

Section	Dimension	No. of items	Measure
Section A	Demographic Profile	9	Nominal
Section B	Social Networking Site Usage	14	Nominal and Scale
Section C	Personality Traits	26	Scale
Section D	Social Capital and Social Trust	31	Scale
Section E	Willingness to Collective Action	8	Scale
Total Number of Items		88	-

Table 4.4: Structure of Questionnaire: Offline Category

Section	Dimension	No. of items	Measure
Section A	Demographic Profile	9	Nominal
Section B	Membership and Participation in Clubs	12	Nominal and Scale
Section C	Personality Traits	26	Scale
Section D	Social Capital and Social Trust	31	Scale
Section E	Willingness to Collective Action	8	Scale
Total Number of Items		86	-

4.12 Pre-testing and Pilot study

A panel of experts reviewed the initial questionnaire before pre-testing in order to assess the face validity and content validity of the questionnaire. According to the reviewers' comments, the questionnaire was revised and modified. This questionnaire was pre-tested for its clarity and scale reliability on a small sample of Social Networking Site users especially the students under the age group of 18-25. Further, a pilot study was done with the 150 members of Social networking site and Clubs/Association to refine the measurement instrument before final print. The results of pilot study are given in the following heads.

4.13 Reliability and Exploratory Factor Analysis

In order to identify the factors that make up dependent and independent variables under the study and to reduce the indicators that measure a particular variable, Exploratory Factor Analysis was conducted using SPSS 19.0. The details of EFA is given in the following heads. The items that load higher than 0.5 were retained and the items having lower loadings were

eliminated as per the criteria laid down by Hair et al. (2009) as the loadings of all indicators should be 0.5 or above on their hypothesized component to be considered practically significant.

4.13.1 Intensity of SNS Usage and Intensity of Participation in Clubs/Associations

(a) Reliability Analysis

Social Networking Site Usage was measured with *Facebook Intensity Scale* by Ellison et al. (2007). The scale includes 9 items. Reliability of the scale was assessed using Cronbach’s alpha value. Intensity of participation in Clubs/Association was measured with Smith et al. (1997). The scale included 9 items. The Cronbach’s Alpha value of the intensity of SNS usage and intensity of participation in Clubs/Association are given in the table below:

Table 4.5: Reliability Analysis – Intensity of SNS Usage and Intensity of Participation in Clubs/Associations

Scale	Cronbach’s alpha	No. of Items
Intensity of SNS Usage	.876	8
Intensity of Participation in Clubs/Association	.831	8

(b) Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett’s Test of Sphericity were analysed for Intensity of SNS Usage scale and Intensity of participation in Clubs/Associations. The results of these analyses are given in the table below. KMO statistics indicates the proportion of variance in the variables that might be caused by underlying factors.

Table 4.6: KMO and Bartlett's Test of Sphericity – Intensity of SNS Usage and Participation in Club/Association

KMO and Bartlett's Test of Sphericity		Intensity of SNS Usage	Intensity of Participation in Clubs/Association
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.873	.876
Bartlett's Test of Sphericity	Approx. Chi-Square	1408.307	872.041
	Df	21	21
	Sig.	.000	.000

The table reveals that KMO test supports the sampling adequacy for factor analysis and Bartlett's Test of Sphericity is significant at .01 ($p < .01$) indicating that correlation exist among some of the response categories. An Exploratory Factor Analysis was performed with Principal Component Analysis method and it extracted one component with Eigen value greater than 1 which accounted for 57.42% total variance of the Intensity of SNS usage scale and 50.18% total variance of Intensity of participation in Clubs/Association.

4.13.2 Bridging Social Capital

(a) Reliability Analysis

Bridging social capital was measured using Williams Social Capital Scale (2006). The original scale included 10 items for measuring the bridging social capital. The consistency of the scale was assessed with Cronbach's alpha value provided in the table below:

Table 4.7: Reliability Analysis – Bridging Social Capital

Scale	Cronbach's alpha	No. of Items
Bridging Social Capital (Online)	.893	10
Bridging Social Capital (Offline)	.904	10

(b) Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett’s Test of Sphericity were analysed for bridging social capital scale. The table shows that KMO test supports the sampling adequacy for factor analysis and Bartlett’s Test of Sphericity is also significant at .01.

Table 4.8: KMO and Bartlett’s Test of Sphericity – Bridging Social Capital

KMO and Bartlett’s Test of Sphericity		Bridging Social Capital (Online)	Bridging Social Capital (Offline)
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.914	.929
Bartlett's Test of Sphericity	Approx. Chi-Square	1897.319	1940.283
	Df.	45	45
	Sig.	.000	.000

Exploratory Factor Analysis was performed with Principal Component Analysis method and it extracted one component with Eigen value greater than 1 which accounted for 51.23% total variance of the bridging social capital (online) scale and 53.97% total variance of bridging social capital (offline) scale.

4.13.3 Bonding Social Capital

(a) Reliability Analysis

William’s Social Capital Scale (2006) was used for measuring bonding Social Capital. The scale included 9 items. The reliability of the scale was analysed with Cronbach’s alpha value. Even though the Cronbach’s alpha value was .826 for 9 items, analysis of the item total correlation showed two

items with low correlation with the total and thus these two items were deleted. Thus finally it was decided to measure bonding social capital with 7 items. The final results of reliability are shown in the table below:

Table 4.9: Reliability Analysis – Bonding Social Capital

Scale	Cronbach's alpha	No. of Items
Bonding Social Capital(Online)	.856	7
Bonding Social Capital (Offline)	.878	7

(b) Factor Analysis

Table 4.10: KMO and Bartlett's Test of Sphericity – Bonding Social Capital

KMO and Bartlett's Test of Sphericity		Bonding Social Capital (Online)	Bonding Social Capital (Offline)
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.890	.906
Bartlett's Test of Sphericity	Approx. Chi-Square	1158.925	1227.446
	Df.	21	21
	Sig.	.000	.000

Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity were analysed for bonding social capital Scale. The table shows that KMO test supports the sampling adequacy for factor analysis and Bartlett's Test of Sphericity is also significant at .01 ($p < .01$) indicating inter-correlation for factor analysis. The measurement items were analysed with Principal Component Method and the results extracted one component. The proportion of the variance explained by one component was 54.30% for

bonding social capital (online) scale and 57.98% for bonding social capital (offline) scale.

4.13.4 Cognitive Social Capital

(a) Reliability Analysis

Cognitive social capital was measured by adopting items from Huang et al. (2011). There were 7 items in cognitive social capital scale. These items were checked for reliability. The reliability analysis of the cognitive social capital was shown in the table below:

Table 4.11: Reliability Analysis – Cognitive Social Capital

Scale	Cronbach’s alpha	No. of Items
Cognitive Social Capital (Online)	.835	7
Cognitive Social Capital (Offline)	.891	7

(b) Factor Analysis

Table 4.12: KMO and Bartlett’s Test of Sphericity – Cognitive Social Capital

KMO and Bartlett’s Test of Sphericity		Cognitive Social Capital (Online)	Cognitive Social Capital (Offline)
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.866	.893
Bartlett’s Test of Sphericity	Approx. Chi-Square	1000.735	1439.377
	Df.	21	21
	Sig.	.000	.000

Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett’s Test of Sphericity were analysed for cognitive social capital scale. The table

shows that KMO test supports the sampling adequacy for factor analysis and Bartlett's Test of Sphericity is also significant at .01. Exploratory Factor Analysis was performed with Principal Component Analysis method and it extracted one component with Eigen value greater than 1 which accounted for 50.87% total variance of the cognitive social capital (online) scale. If the factor structure explains 50% or even lesser can also be considered as satisfactory in social sciences research (Hair et al., 1998). And 60.62% total variance explained of cognitive social capital (offline) scale.

4.13.5 Social Trust

(a) Reliability Analysis

Social trust was measured with 5 items adopted from Huang et al. (2011). The reliability of the scale was ensured with internal consistency method using Cronbach's alpha value. The reliability analysis results are given in the table below:

Table 4.13: Reliability Analysis – Social Trust

Scale	Cronbach's alpha	No. of Items
Social Trust (Online)	.836	5
Social Trust (Offline)	.806	5

(b) Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity were analysed for social trust scale. The table shows that KMO test supports the sampling adequacy for factor analysis and Bartlett's Test of Sphericity is also significant at .01 ($p < .01$) indicating inter-correlation for factor analysis. The measurement items were analysed with

Principal Component Method and the results extracted one component. The proportion of the variance explained by one component was 60.49% of social trust (online) scale and 56.43% total variance explained of social trust (offline) scale.

Table 4.14: KMO and Bartlett’s Test of Sphericity – Social Trust

KMO and Bartlett’s Test of Sphericity		Social Trust (Online)	Social Trust (Offline)
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.838	.758
Bartlett’s Test of Sphericity	Approx. Chi-Square	791.441	719.069
	Df.	10	10
	Sig.	.000	.000

4.13.6 Willingness to Collective Action

(a) Reliability Analysis

Willingness to collective action was measured by adapting items from Zomeran et al. (2004) and Tausch et al. (2011). There were 8 items in the initial scale. The scale was checked for reliability. And the Cronbach’s alpha value was .852. But due to low correlation of one item with the total, that item was deleted and the final results of the reliability are given in the table below:

Table 4.15: Reliability Analysis – Willingness to Collective Action

Scale	Cronbach’s alpha	No. of Items
Willingness to Collective action (Online)	.865	7
Willingness to Collective action (Offline)	.865	7

(b) Factor Analysis

KMO test and Bartlett's Test of Sphericity were performed for willingness to collective action measurement items. The results are given in the table below:

Table 4.16: KMO and Bartlett's Test of Sphericity – Willingness to Collective Action

KMO and Bartlett's Test of Sphericity		Willingness to Collective Action (online)	Willingness to Collective Action (offline)
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.890	.873
Bartlett's Test of Sphericity	Approx. Chi-Square	1273.183	1328.404
	Df.	21	21
	Sig.	.000	.000

Kaiser-Meyer-Olkin Measure of Sampling Adequacy as per the table results is .890 for online and .873 for offline which are above the minimum of .07 (Hair et al., 1998). Bartlett's Test of Sphericity was assessed and it was significant at .01 ($p < .01$). Thus the two measures ensured the performance of factor analysis. The items were again taken for Exploratory Factor Analysis using Principal Component Method. The PCM extracted one component with Eigen value greater than 1 which accounted for 56.29% total variance of the willingness to collective action (online) scale and 57.21% total variance of the willingness to collective action (offline) scale.

4.13.7 Personality Traits

(a) Reliability Analysis

Three of the Big Five Personality Inventory (Extraversion, Agreeableness and Conscientiousness) were measured with the items from Goldberg (1993). The scale included 26 items. The reliability of the scale was assessed with Cronbach’s alpha value. An analysis of the item total correlation showed 11 items with low correlation with the total and thus these items were removed. Finally it was decided to measure extraversion with 5 items, agreeableness with 5 items and conscientiousness also with 5 items. The reliability statistics of the scale is given below:

Table 4.17: Reliability Analysis – Personality Traits

Scale	Cronbach’s alpha (Online)	Cronbach’s alpha (Offline)	No. of Items
Extraversion	.784	.779	5
Agreeableness	.808	.757	5
Conscientiousness	.820	.786	5

(b) Factor Analysis

KMO test and Bartlett’s Test of Sphericity were performed for Personality traits measurement items. As given in the table below, KMO and Bartlett’s Test of Sphericity are significant for three personality traits namely, extraversion, agreeableness and conscientiousness which ensures the performance of factor analysis.

Table 4.18: KMO and Bartlett's Test of Sphericity – Personality Traits (Online)

KMO and Bartlett's Test of Sphericity		Extraversion	Agreeableness	Conscientiousness
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.803	.842	.839
Bartlett's Test of Sphericity	Approx. Chi-Square	592.395	617.798	695.438
	Df.	10	10	10
	Sig.	.000	.000	.000

Table 4.19: KMO and Bartlett's Test of Sphericity – Personality Traits (Offline)

KMO and Bartlett's Test of Sphericity		Extraversion	Agreeableness	Conscientiousness
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.799	.808	.799
Bartlett's Test of Sphericity	Approx. Chi-Square	509.338	424.014	542.124
	Df.	10	10	10
	Sig.	.000	.000	.000

Factor analysis using Principal Component Analysis extracted 1 component with total variance explained as 54.37% for Extraversion, 56.66% for Agreeableness and 58.48 for Conscientiousness of online personality scale and 53.35% for Extraversion, 50.90% for Agreeableness and 54.17% for Conscientiousness of offline personality scale.

4.14 Chapter Summary

This chapter covered the major aspects of research methodology used in the study. Rationale of the study, Research Problem, Research objectives were explained in detail. Conceptual framework for the study, hypotheses, variables in the study, research design, sampling design and data collection details such as Instrument for data collection, structure of questionnaire etc. were also discussed. The reliability and factor analysis show that all the scales used for data collection are reliable and thus decided to proceed with the same scales for final data collection.

.....✪✪.....

Chapter 5

DATA ANALYSIS: SAMPLE PROFILE AND HYPOTHESES TESTING

<i>Contents</i>	5.1 <i>Metrics of Data Collection</i>
	5.2 <i>Demographic Profile of the Respondents</i>
	5.3 <i>Profile of Respondents according to SNS Usage Characteristics</i>
	5.4 <i>Descriptive Statistics of Variables under the Study</i>
	5.5 <i>Analysis of Normality of Data</i>
	5.6 <i>Analysis of Relationship between Variables</i>
	5.7 <i>Hypotheses Testing: A Compendium</i>
	5.8 <i>Chapter Summary</i>

This chapter deals with the empirical analysis of final data collected for the study. The chapter begins with the details of the data collection and demographic profile of the respondents, then proceeds to the analysis of general social networking site usage characteristics. The descriptive statistics and normality of data are discussed and lastly hypotheses formulated for the study are tested and the results are presented.

5.1 Metrics of Data Collection

A total of 1000 questionnaires were distributed (500 to the members of social networking sites i.e., online and 500 to the members of Clubs/Associations i.e. offline) to the targeted population across Kerala for the participation in the survey.

Table 5.1: Metrics of Data Collection

Category	No. of Questionnaires Distributed	No. of Responses	Usable Responses
Online	500	448	435
Offline	500	434	407
Total	1000	882	842

Out of 1000 questionnaires distributed, 882 questionnaires were collected back. After the initial screening, the incomplete questionnaires were rejected. The data set was entered into SPSS for further processing. The data set was tested for outliers through bootstrapping which showed that there were 40 responses that cannot be used for the study. Thus, the usable responses finally available for analysis came to 842 responses which was sufficient to take care of data adequacy in the study. The details of data collection such as total number of questionnaires distributed to respondents, total number responses collected back and final usable responses are presented in Table 5.1. Since the online and offline responses were collected separately, the data collection details are also provided by categorizing online respondents and offline respondents.

5.2 Demographic Profile of the Respondents

Profile of the respondents according to the demographic features such as age, gender, location, marital status, religion, educational qualification, occupation and income of the respondents are discussed in the following section:

5.2.1 Age Profile of Respondents

Age is classified into four categories and quotas for data collection was based on this classification. Majority of the respondents comes under the age group of 18-24 years, 31% of the respondents comes under 25-34 age group, 9% under 35-44 age group and only 2% in the age group of 44 years and above. The age wise classification is more or less same as *Facebook* statistics. Among the members of the clubs and associations, majority of the respondents comes under the age group of 18-24 years, 32% under 25-34 age group, 8% under 35-44 age group and 3% under the age group of 44 years and above.

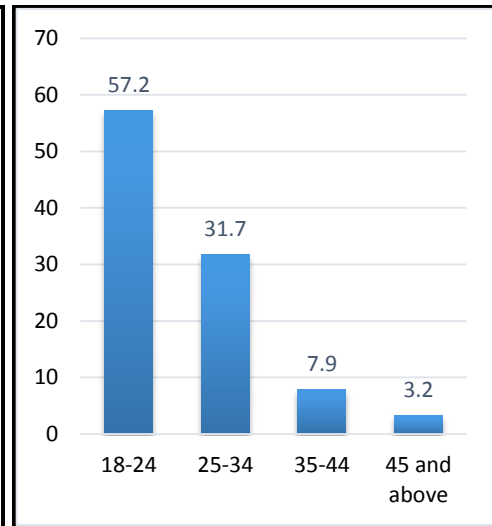
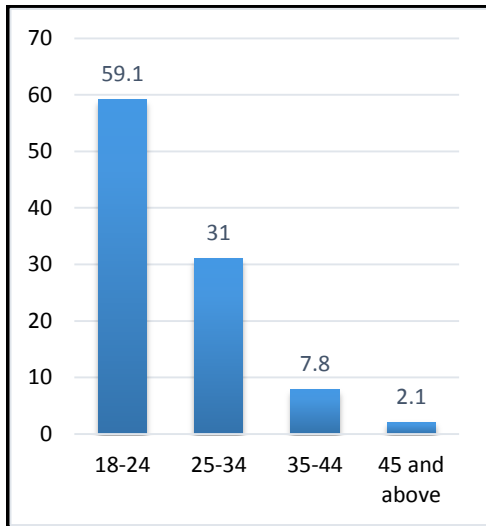


Fig. 5.1. Age Profile of SNS Members

Fig. 5.2. Age Profile of Club Members

Table 5.2: Age Profile of Respondents

Sl. No	Age Groups	Online Respondents		Offline Respondents	
		Frequency	Percent	Frequency	Percent
1	18-24	257	59.1	233	57.2
2	25-34	135	31.0	129	31.7
3	35-44	34	7.8	32	7.9
4	45 and above	9	2.1	13	3.2
Total		435	100.0	407	100.0

5.2.2 Gender Profile of Respondents

Gender is an important demographic variable which influence the SNS usage and social capital of the people. From the diagram it is clear that majority of the respondents comes under the female category in case of SNS members whereas the majority of the respondents of Clubs/Associations are under male category.

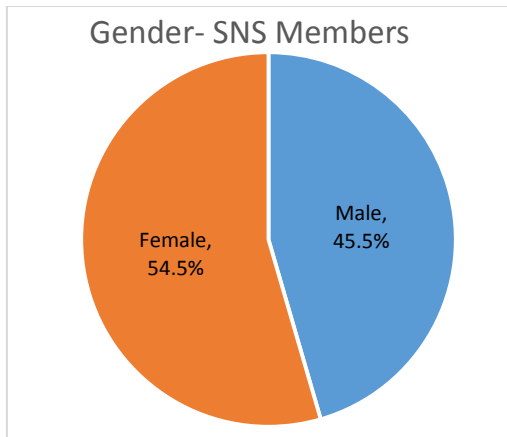


Fig. 5.3. Gender Profile of SNS Members

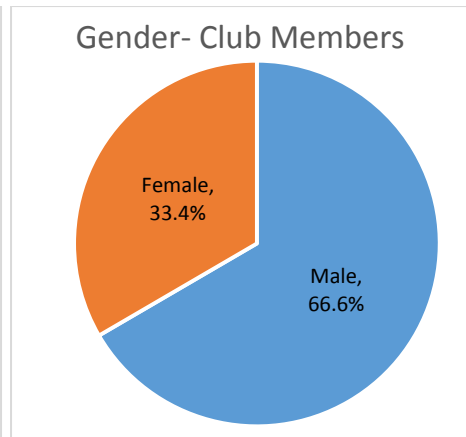


Fig. 5.4. Gender Profile of Club Members

Table 5.3: Gender Profile of Respondents

Sl. No	Gender	Online Respondents		Offline Respondents	
		Frequency	Percent	Frequency	Percent
1	Male	198	45.5	271	66.6
2	Female	237	54.5	136	33.4
Total		435	100.0	407	100.0

5.2.3 Marital Status of Respondents

The marital status of the respondents are given in the table (5.4) below. The percentage analysis of the respondents under online category reveals that 76% of the respondents are unmarried, 24% married and only .5% of the respondents are divorced. The members of clubs/Association are also showing the same trend where 68% of them are unmarried, 31% married and only 1% divorced.

Table 5.4: Marital Status of Respondents

Sl. No	Marital Status	Online Respondents		Offline Respondents	
		Frequency	Percent	Frequency	Percent
1	Unmarried	329	75.6	277	68.1
2	Married	104	23.9	125	30.7
3	Divorced	2	.5	5	1.2
Total		435	100.0	407	100.0

5.2.4 Educational Qualification of Respondents

Education is an important determinant of social capital. Literature on social capital shows that education qualification is an important predictor of social capital among members of the social network. From the table it is

clear that around 41% of them are Graduates, 38% of them are Post Graduates, 11% acquired plus two and 7% constitute MPhil or PhD holders. Among the members of the Clubs/Associations, 50% of them are Graduates. A comparison of the members of the social networking sites and Clubs/ Association shows that majority of the online members are under the group of Graduation and Post-Graduation whereas among offline members, majority of the respondents are under Graduation category.

Table 5.5: Educational Qualification of Respondents

Sl. No	Education	Online Respondents		Offline Respondents	
		Frequency	Percent	Frequency	Percent
1	SSLC	9	2.1	44	10.8
2	Plus Two	46	10.6	66	16.2
3	Degree	177	40.7	204	50.1
4	PG	167	38.4	70	17.2
5	MPhil/PhD	31	7.1	11	2.7
6	Diploma	5	1.1	12	2.9
Total		435	100.0	407	100.00

5.2.5 Religion of Respondents

The respondents both members of SNS and Members of Clubs/Associations were asked to mark their religion. Among the members of the SNS, majority of the respondents (54%) comes under the category of Hindu, followed by Christians (33%) and Muslim (13%). In case of members of Clubs/Association, 47% constitute Hindu, 45% Christians and 7% Muslims.

Table 5.6: Religion of Respondents

Sl. No	Religion	Online Respondents		Offline Respondents	
		Frequency	Percent	Frequency	Percent
1	Hindu	235	54.0	193	47.4
2	Christian	145	33.3	184	45.2
3	Muslim	55	12.6	30	7.4
Total		435	100.0	407	100.00

5.2.6 Location of Respondents

The location of the respondents are classified into three groups; urban, semi-urban and rural. The percentage analysis of the respondents shows that 39 of the respondents are coming from urban area, 31% from rural area and 30% from semi-urban area for members of SNS.

Table 5.7: Location of Respondents

Sl. No	Location	Online Respondents		Offline Respondents	
		Frequency	Percent	Frequency	Percent
1	Urban	170	39.1	225	55.3
2	Semi-Urban	130	29.9	105	25.8
3	Rural	135	31.0	77	18.9
Total		435	100.0	407	100.00

Comparison of members of SNS to Clubs/Associations with SNS members shows that there is significant variation in representation of respondents from three locations; among offline members 55% of the respondent coming from urban are whereas only 39% from the same location for online members; representation of members from semi-urban

area is more or less same; but there is significant difference in members from rural areas in such a way that 31% in case of online members and only 19% among offline club/association members.

5.2.7 Occupation of Respondents

The respondents are classified into seven categories like Government employee, public sector, private sector, independent professionals, students and others.

Table 5.8: Occupation of Respondents

Sl. No	Occupation	Online Respondents		Offline Respondents	
		Frequency	Percent	Frequency	Percent
1	Government Employees	17	3.9	26	6.4
2	Public Sector	13	3.0	12	2.9
3	Private Sector	106	24.4	64	15.7
4	Independent Professional	12	2.8	51	12.5
5	Student	280	64.4	240	59.0
6	Others	7	1.6	14	3.4
Total		435	100.0	407	100.00

Among online members, majority of the respondents (64%) of the respondents comes under the student category followed by private sector (24%), Government employees (4%), public sector (3%) and independent professionals (3%). For the members of Clubs/Associations also, majority of the respondents are under the students category (59%), followed by private sector (16%), independent professionals (13%), Government employees (6%), public sector (3%) and others (3%).

5.2.8 Income of Respondents

The respondents are classified according to their earnings or income per month. Since majority of the respondents are under the age group of 18-24 as well as they are under student category, 61% of the respondents are under no income category among online members and 57% of the respondents are under the no income category among offline members.

Table 5.9: Income of Respondents

Sl. No	Income Range	Online Respondents		Offline Respondents	
		Frequency	Percent	Frequency	Percent
1	Below ₹10000	15	3.4	28	6.9
2	10000-20000	44	10.1	71	17.4
3	20000-30000	55	12.6	22	5.4
4	30000-40000	30	6.9	16	3.9
5	40000-50000	11	2.5	9	2.2
6	Above 50000	13	3.0	31	7.6
7	N.A.*	267	61.4	230	56.5
Total		435	100.00	407	100.00

*Indicates students & those members who are not earning income

5.3 Profile of Respondents according to SNS Usage Characteristics

The following section discusses the analysis results of behavioral patterns of SNS usage among networking members. Various SNS usage characteristics such as membership in SNS, years of usage of SNS, number of online friends, time spend on SNS, frequency of log in into SNS, number of log in in a particular day and the device used for accessing SNS etc. are analysed and the results are presented.

5.3.1 Classification of Respondents according to Membership in SNS

Most commonly used social networking site such as *Facebook*, *LinkedIn*, *Google Plus*, *Twitter* and *Myspace* in India were identified and included in the questionnaire for rating. The table below shows the percentage analysis of the membership in SNS by respondents. Majority of the respondents are using a combination of SNS keeping *Facebook* as their most important one. The results show that *Facebook* is the most preferred social networking sites followed by *Google Plus*, *LinkedIn* and *Twitter*.

Table 5.10: SNS Membership Details of Respondents

Sl. No.	Social Networking Sites	Frequency	Percent
1	Facebook	192	44.1
2	Facebook and LinkedIn	42	9.7
3	Facebook, LinkedIn and Google Plus	25	5.7
4	Facebook, LinkedIn, Google Plus and Twitter	56	12.9
5	Facebook and Google Plus	81	18.6
6	Facebook, Google Plus and Twitter	16	3.7
7	Facebook and Twitter	23	5.3
Total		435	100.0

5.3.2 SNS Membership Acquaintance of Respondents

The table (5.11) below shows the tabular representation of SNS membership acquaintance of respondents. It is clear from the table that around 25% of the respondents are *Facebook* member for 1-2 years and 20 % accounts for 2-3 years of membership in *Facebook*. Around 8% of the respondents are *Facebook* member for the last 7 years.

Table 5.11: SNS Membership Acquaintance of Respondents

Sl. No.	Year	Frequency	Percent
1	1-2 years	106	24.4
2	2-3 years	85	19.5
3	3-4 years	71	16.3
4	4-5 years	71	16.3
5	5-7 years	69	15.9
6	More than 7 years	33	7.6
Total		435	100.0

5.3.3 Number of SNS Friends of Respondents

The following table (table 5.12) shows the classification of respondents on the basis of the number of online friends they have in their social networking site. From the table it is clear that around 25% of the respondents have more than 400 online friends, followed by 300-400 friends (23%), 100-200 friends (19%) and only 15% have friends below 100.

Table 5.12: Number of SNS Friends of Respondents

Sl. No.	No. of Online Friends	Frequency	Percent
1	Below 100	66	15.2
2	100-200	81	18.6
3	200-300	80	18.4
4	300-400	100	23.0
5	More than 400	108	24.8
Total		435	100.0

5.3.4 Time Spent on SNS by Respondents

The table shows the classification of respondents on the basis of the time spent by them on their SNS. Majority of the respondents spent 30 minutes to 1 hour per day on SNS. This is similar to National statistics on *Facebook* where in a typical social networking site user spent 30 minutes to 1 hour for online social networking activities. Thus it can be concluded that on an average a typical user of online social network uses spent 30 minutes to 1 hour for online activities.

Table 5.13: Time Spent on SNS by Respondents

Sl. No	Time spent on Facebook	Frequency	Percent
1	Less than 30 minutes	132	30.3
2	30 minutes - 1 hour	149	34.3
3	1- 1.5 hours	59	13.6
4	1.5 hours – 2 hours	75	17.2
5	More than 2 hours	20	4.6
Total		435	100.0

5.3.5 Frequency of SNS Log in by Respondents

The frequency of log in into social networking sites was analysed with percentage analysis in order to get the log in pattern of the social networking site users/members into the site. The analysis result reveals that 72% of the respondents are log in into their interested SNS daily indicating that major respondents are considered social networking through online social network as their part of daily activity.

Table 5.14: Frequency of SNS Log in by Respondents

Sl. No	Frequency of Log in	Frequency	Percent
1	Daily	314	72.2
2	Alternate days	107	24.6
3	Twice a week	14	3.2
Total		435	100.0

Those who used to log in into the site daily were asked to mark the number of times they log into the site in a day. Majority of the respondents used to log in more than three times a day. The table below shows the frequency of SNS log in a day by the respondents. Since, the number of members who are log in daily into these sites were 314, this question was asked to them only. From the table, it is clear that 37% of the respondents used to log in more than three times in day in these sites.

Table 5.15: Frequency of SNS Log in a Day by Respondents

Sl. No	Frequency of SNS Log in a Day	Frequency	Percent
1	One	99	31.5
2	Two	61	19.4
3	Three	38	12.1
4	More than three	116	36.9
Total		314	100.0

5.3.6 Device Used for Accessing SNS

The table below shows the percentage analysis of device used by the respondent for accessing social networking sites. The results show that 63.4% of the respondents are using Mobile phones are the most preferred/used device

for accessing the social networking sites. With the introduction of smart phones, almost all of the members of social networking sites had installed the *Facebook* app in their own device so that they can access the same at any time. The second preferred and used device is laptops followed by desktop and tablet. Earlier, people used to log in into social networking sites with desktop and laptops. But, with the introduction of smart phones, this trend has changed now and majority of the users of SNS uses mobile phone as the most preferred device for accessing SNS. Thus, this finding suggests the possibility of introduction of new device for accessing SNS in future.

Table 5.16: Device Used for Accessing SNS

Sl. No	Device	Frequency	Percent
1	Desktop	52	12.0
2	Laptop	91	20.9
3	Tablet	16	3.7
4	Mobile Phone	276	63.4
Total		435	100.0

5.4 Descriptive Statistics of Variables under the Study

The table (5.17) below shows the descriptive statistics of both dependent and independent variables under the study. The mean and the standard deviation are also presented. Standard deviation shows the spread of the data. It is clear from the table that all mean scores are on the higher scale and the standard deviation on the lower scale, indicating that the respondents have understood the questions in the same way and the questions have been answered properly.

Table 5.17: Descriptive Statistics of Variables

Variable	Online Respondents			Offline Respondents		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation
INT	435	2.8648	.87106	407	4.1593	.60958
BRD	435	3.4375	.71566	407	3.6801	.75120
BOND	435	2.7964	.77498	407	3.4395	.87274
COG	435	3.3882	.69562	407	3.4595	.87430
TRUST	435	3.1683	.78206	407	3.7410	.75987
CA	435	3.3957	.76750	407	3.5781	.79464
EXVR	435	3.7002	.59682	407	3.9686	.58199
AGRB	435	3.9577	.52201	407	4.0275	.52488
CONS	435	3.6966	.61101	407	3.9317	.58111

5.5 Analysis of Normality of Data

Normality in the data is often a conventional assumption in the estimation process. Data distribution with either a highly skewed nature or with high kurtosis is indicative of non-normality which has random effects on specification or estimation. Therefore, an attempt has been made to ascertain the normality of the data with skewness and kurtosis values. The normality assumption of data is tested with Skewness and Kurtosis values. The skewness and kurtosis values of all the variables are reported in the table (5.18) given below. Skewness value of the all the variables are negative indicating a left-skewed distribution. The descriptive analysis of dependent and independent variables were done and the kurtosis values of

all the variables were found to be less than 3 except for agreeableness. Thus, it can be concluded that data distribution is normal.

Table 5.18: Skewness and Kurtosis Values of Variables

Variable	Online Respondents		Offline Respondents	
	Skewness	Kurtosis	Skewness	Kurtosis
INT	.096	-.380	-.771	.781
BRD	-.636	-.188	-.708	-.042
BOND	-.071	-.159	-.407	-.721
COG	-.603	.400	-.442	-.722
TRUST	-.303	-.152	-.958	.341
WCA	-.362	-.302	-.617	-.377
EXTRVSN	-.430	.624	-.836	1.648
AGRABL	-.961	3.119	-.938	3.208
CONS	-.392	.733	-.153	.086

5.6 Analysis of Relationship between Variables

The study anticipated positive correlation with dependent variable and all independent variables under the study. The following table show the correlation analysis of all the variables under the study. From the table it is clear that intensity of SNS usage positively correlated with bridging social capital, bonding social capital, social trust, cognitive social capital and one's willingness to collective action. Bridging social capital, bonding social capital, social trust and cognitive social capital have positive correlation with willingness to collective action. All the correlation values are significant and under acceptance limit.

Table 5.19: Correlation Analysis

Variable	INT	BRD	BOND	COG	TRUST	CA	EXVR	AGRB	CONS
INT	1	.510**	.505**	.388**	.379**	.328**	.133**	.055	.141**
BRD	.510**	1	.501**	.566**	.524**	.613**	.088	.091	.200**
BOND	.505**	.501**	1	.418**	.550**	.392**	.021	-.050	.077
COG	.388**	.566**	.418**	1	.600**	.415**	.064	.148**	.205**
TRUST	.379**	.524**	.550**	.600**	1	.513**	.090	.081	.198**
CA	.328**	.613**	.392**	.415**	.513**	1	.078	.093	.072
EXVR	.133**	.088	.021	.064	.090	.078	1	.277**	.286**
AGRB	.055	.091	-.050	.148**	.081	.093	.277**	1	.321**
CONS	.141**	.200**	.077	.205**	.198**	.072	.286**	.321**	1

(**INT**- intensity of SNS usage, **BRD**- bridging social capital, **BOND**- bonding social capital, **COG**-cognitive social capital, **CA**- willingness to collective action, **EXVR**- extraversion, **AGRB**- agreeableness, **CONS**- conscientiousness)

5.7 Hypotheses Testing: A Compendium

The next section of this chapter presents the hypotheses testing results on the anticipated relationship among variable in the study. The first set of hypotheses (Hypothesis 1 to Hypothesis 10) deal with the relationship between Intensity of SNS usage and social capital and Social capital to willingness to collective action. For testing these hypotheses simple regression was performed. The next set of hypotheses (Hypothesis H11a to H11g) analyses the significant group difference in one’s willingness to collective action across demographic characteristics such as age, gender etc. For testing these hypotheses t test and ANOVA were used.

H₁: “Intensity of SNS usage has significant relationship with social trust.”

A simple regression was done to find out the influence of intensity of SNS usage on social trust. The analysis results reveal that intensity of SNS usage significantly predicts social trust among member of SNS. The results of the regression show that the model is significant at $p=.000$ with the $R^2=.14$ indicating 14% variation in social trust is caused by intensity of SNS usage. The standardized Beta Coefficient is 0.37 showing positive strength of relationship between variables.

The simple regression analysis indicates a positive relationship between intensity of SNS usage and social trust. This result is in line with the study finding by Lin and Lu (2011) that SNS build trusted relationship among members/users of SNS. Radmacher & Azmitia (2006) suggested that use of SNS as an excellent plat form for self-disclosure among young adults to form trusted relationship. The hypothesized relationship between intensity of SNS usage and social trust is proved to be positive in this study thus establishes the relationship between intensity of SNS usage and social trust indicating that social trust among networking members is being developed and maintained in online networking context. Thus, intensive social networking site usage positively predicts social trust among members and use of SNS provide a platform for the members to come together online and thereby forming trusted relationship between them.

This finding suggests that one’s frequent interaction with the other members of social networks make them believing others and the result will be the increased trust among networking members. If one is intensively using SNS, he would be updated with the life events etc. of his online friends

time to time, and this updates help the members to know each other very well. And this will in turn increase the trust between them. Earlier, trust among social networking site members were low, but this trend is changing now and members are ready to disclose even their personal matters to their online friends. Thus, this study finding indicates the possible increase in trust levels of individuals over social networking sites with intensive use of SNS.

H₂: “Intensity of SNS usage ha significant relationship with cognitive social capital.”

In order to test the Hypothesis 4, a simple regression was done by keeping intensity of SNS usage as independent variable and cognitive social capital as dependent variable. The analysis results reveal that intensity of SNS usage significantly predicts cognitive social capital; the model is significant ($p=.000$) with $R^2=.14$ indicating 14% variation in cognitive social capital is caused by intensity of SNS usage; strength of the relationship is also significant and the standardized beta coefficient value is 0.38.

The result shows that intensive SNS usage positively influences cognitive social capital. Early studies show that cognitive social capital positively related with users satisfaction towards SNS and continuance intention but this study results indicate that Intensity of SNS usage significantly predict cognitive social capital. The cognitive social capital refers to the shared vision which is emerged as a state that develops when the members of social network have access to same networks, same information and share same SNS tools. This study result indicate that online social networks provide the members a venue to express their shared vision and there by the members can develop their cognitive social capital as they have access to same networks, information and share same SNS tools. And one who is

intensively using SNS will be able to access information and share the SNS tools at the best possible way in order to increase his/her cognitive social capital. Thus, the result of hypothesized relationship between intensity of SNS usage and cognitive social capital establishes that cognitive social capital is influenced by intensity of SNS usage.

H₃: “Intensity of SNS usage has significant relationship with bridging social capital.”

The next hypothesis tested was intensity of SNS usage has significant relationship with bridging social capital. The regression results show that intensity of SNS usage significantly ($p=.000$) predicts bridging social capital. The R^2 value is 0.31 indicating 31% of variation in dependent variable (bridging social capital) is caused by intensity of SNS usage. The strength of the relationship is significant and positive ($B=0.56$).

The simple regression analysis result show a positive relationship between intensity of SNS usage and bridging social capital. The relationship between intensity of SNS usage and bridging social capital is supported with the previous finding by Ellison et al. (2007), Steinfield (2008), Lee (2014) and Brandtzeag (2012) that intensive SNS usage significantly predicts bridging social capital. Burke et al (2011) indicated that time spent on *Facebook* was positively related with bridging social capital. And Ellison et al. (2011) showed that number of actual friends on SNS positively predicts one’s bridging social capital. But one study by Papacharisisi & Mendelso (2011) specified a contradictory result with this as his finding doesn’t show any relationship between *Facebook* use and bridging social capital. Thus, this study establishes the relationship between intensity of

SNS usage and social capital indicating that SNS usage creates bridging social capital among networking members.

H₄: “Intensity of SNS usage has significant relationship with bonding social capital.”

In order to check the sixth hypothesis, i.e., intensity of SNS usage has significant relationship with bonding social capital, a simple regression was done. The analysis results reveal that intensity of SNS usage significantly ($P=0.000$) predicts bonding social capital; the R^2 value is 0.25 indicating 25% variation in bonding social capital is caused by intensity of SNS usage; B value is significant ($p=0.000$) and standardized B co-efficient is 0.50 showing a positive strength of relationship between these two variables.

Intensity of Social Networking Site usage is positively related with bonding social capital. Burke et al. (2010) indicated that positive use of social networking sites contributes towards greater feelings of bonding or bonding social capital. Steinfield (2008) and Hampton et al. (2011) also showed the same finding suggesting that intensity of SNS usage is a strong predictor of bonding social capital. The features of social networking sites such as status updates, wall posts, inbox messages, chat etc., support relationship maintenance behaviors among close friends and relatives. Social networking sites enclose a number of features that support relationship maintenance behaviors among close friends, which, in turn, could enable individuals to accrue bonding social capital. For example, *Facebook*'s numerous communication channels reduce the coordination costs associated with interacting both directly and indirectly with individuals and groups of users. Intensive use of SNS help the members to get emotional support by asking advice about a big decision, and for engaging in generalized

reciprocity by responding to others' requests. Thus, the relationship between intensity of SNS usage and bonding social capital indicates that social networking sites are promoting bonding social capital among networking members.

The first set of hypotheses i.e., the relationship between intensity of SNS usage and social capital and social trust indicated that one's intensive use of SNS usage definitely promotes social capital among networking members. This finding is in line with the previous studies linking intensity of SNS usage and social capital. Among the three types of social capital studied here, bridging social capital is highly promoted with intensive use of social networking sites. This suggests the potential avenue of generating social capital through social networking sites like *Facebook*. Bridging social capital which is characterized with connection with broader range of people is easily possible with the intensive use of SNS as availability and accessibility of social networking site is open for everyone at least cost.

H₅: “Social trust has significant relationship with bridging social capital.”

A simple regression was done to test the influence of social trust on bridging social capital. The analysis results show that social trust significantly influences bridging social capital ($p=0.00$). The model explains 27% variation in dependent variable ($R^2=0.27$). The strength of relationship is positive ($B=0.52$) and significant at 5% level of significance ($p=0.00$).

Ellison et al. (2007) and Decker (2007) indicated that social trust as one among many factors which influences the social capital. And studies by Huang (2003) and Yamamura (2010) suggested that social trust can raise social capital. The literature review on social trust shows that social trust

has been studied as both antecedent and outcome of social capital. But this study hypothesized that social trust significantly influences bridging social capital and the result indicates that social trust significantly influences bridging social capital of networking members. Social trust created among networking members through the intensive use of social networking sites enable them to add on to their bridging social capital. If the members are trusted each other, they will be able to maintain bridging social capital (outward looking, contact with a broader range of people, a view of oneself as part of a broader group and diffuse reciprocity with a broader community) in a better way than untrusted members. For instance, if the members are trusting each other, they might feel like they all are part of a broader group which in turn result in bridging social capital. Thus, the relationship between social trust and bridging social capital is supported indicating social trust significantly contributing to one's bridging social capital.

H₆: “Social trust has significant relationship with bonding social capital.”

A simple regression was done to know the influence of social trust on bonding social capital. The analysis results show that social trust significantly influences bonding social capital ($p=0.00$). The model explains 28% variation in dependent variable ($R^2=0.28$). The strength of relationship is positive ($B=0.53$) and significant at 5% level of significance ($p=0.00$).

As discussed above there are some evidence to show that social trust act as an important factor which influences one's social capital (Ellison et al.,2007; Decker, 2007; Huang, 2003; Yamamura, 2010). But there is no much literature as to which type of social capital is predicted with social trust. In this context, a hypothesis was formulated to know the influence of

social trust on bonding social capital. The result of the hypothesis testing shows that social trust significantly contributing to bonding social capital indicating one can increase his bonding social capital by increasing his/her social trust with networking members of their social network. For instance, increased social trust among networking members creates emotional support among them and the members maintain relationship with the other members of networks like a close friend group or family group. In short, they feel like family and close friends, who might be in a position to provide emotional support or access to scarce resources.

H₇: “Social trust has significant relationship with willingness to collective action.”

In order to test the hypothesis, social trust has significant relationship with willingness to collective action, a simple regression was conducted. The analysis results show that social trust significantly ($p=0.00$) influences one’s willingness to collective action. The R^2 value is 0.26 indicating 26% variance in willingness to collective action is caused because of social trust between networking members. The strength of the relationship is also positive ($B=0.25$).

The relationship between social trust and willingness to collective action shows that social trust significantly influences one’s willingness to collective action. Previous research work by Harris & Renzo (1997) and Pretty & Ward (2001) indicated that social links of trust allow to strengthen collective action. Individual’s contribution in collective action movements will be more if he is in a trusted social network. For example, if one have to arrange a collective action programme to protest against a social issue, it will be easy if they have trusted members in their social network. In short,

one's willingness to collective action is depending upon his/her level of social trust with other members of the network. Thus, the relationship between social trust and willingness to collective action is established indicating that social trust among networking members generate higher levels of social inclusion (Oxoby, 2009) and thereby promoting ones' willingness to collective action.

H₃: “Cognitive social capital has significant relationship with willingness to collective action.”

The relationship between cognitive social capital and willingness to collective action has tested with regression analysis keeping willingness to collective action as dependent variable and cognitive social capital as independent variable. The regression results show that the relationship between these two variables are significant ($p > 0.05$) at 5% level of significance. This result indicate that cognitive social capital is not contributing to one's willingness to collective action. The literature on cognitive social capital and willingness to collective action showed that cognitive social capital mobilizes people towards mutually beneficial collective action (Krishna & Uphoff, 2002). Shared vision is useful to groups and organisations as it develops a set of collectively held value, which in turn, help to create a sense of shared responsibility, promotes integration and encourages collective action (Coleman, 1990).

Social networking sites provide a platform for the members to share their ideas and information in an open network i.e., cognitive social capital and members can access to same network and same information through online social networking, but the cognitive social capital developed among networking members is not promoting one's willingness to collective action.

From the literature, it was assumed that cognitive social capital also would contribute to one's willingness to collective action, but this study results suggest that cognitive aspect of social capital like shared vision are not influencing collective action.

H₉: “Bridging social capital has significant relationship with willingness to collective action.”

The next hypothesis was also tested with regression analysis where willingness to collective action was dependent variable and bridging social capital as independent variable. The relationship between these two variables are significant ($p=.000$) and R^2 was 0.39 showing 39% of variation in willingness to collective action is predicted by bridging social capital. The B value was positive (0.49). Thus, the hypothesis accepted indicating bridging social capital significantly influences willingness to collective action.

The studies relating to bridging social capital and collective action also showed a positive relationship between these two. For example, Putnam (2000) found out that the weak ties, provide the individual members to have linkages with external assets or information which make them mobilize their network members for collective action programmes. As online bridging social capital can attract a large number of people easily and quickly, members can predispose people towards collective action.

As bridging social capital is characterized with the ability of expanding mobilization potential of resources for the members, in case of any social issue, one can immediately call upon or influence their network members to organize collective action against social issue in case of

emergency situations. Since social networking site platforms help the members to pass information regarding collective action programmes with least cost and time, a member who is having high level of bridging social capital can easily mobilize members for collective action. Thus, this research finding indicating a positive relationship between bridging social capital and willingness to collective action, suggest the scope for the potential use of bridging social capital for collective action among networking members.

H₁₀: “Bonding social capital has significant relationship with willingness to collective action.”

In order to test this hypothesis, regression was done. The results show that bonding social capital not significantly ($p > 0.05$) influences willingness to collective action. Scholars like Uphoff (2000) and Pretty (2002) noted that structural social capital facilitates collective action among group members. Earlier, bonding social capital was much higher among members of group as majority of the groups are based on emotional commitment between networking members. But this trend has changed now with the introduction of social networking sites. Bandura (1997) stated that people are more likely to take collective action if they have strong social ties (bonding social capital).

Bonding social capital which is characterized by emotional support creates increased commitment between networking member. This will influence collective action among networking members in such a way that if one possess high level of bonding social capital, then it is an indication that he/she is very much influenced by their network members of family and relatives. But, the results of this study show that there is no relationship between bonding social capital and willingness to collective action

indicating that willingness to collective action efforts are taking place in online social networking settings without bonding social capital. While bonding social capital begins in a relationship between two individuals, the context has an important influence on the development of an emergent group property. Therefore, the stability of the group or the network may impact the bonding social capital of an individual. Individuals in unstable group or community had fewer contacts and were less motivated to participate in community or collective action processes. Moreover, bonding social capital, unlike bridging social capital, may take time to influence one's willingness to collective action as relationship formation in bonding ties takes more time than bridging ties and also takes time to evolve as a sizeable group.

Thus, the above set of hypotheses tested the relationship between social capital and willingness to collective action and social trust and willingness to collective action. The results show that bridging social capital and social trust significantly contributing to collective action efforts of networking members. But the bonding social capital and cognitive social capital not related with one's willingness to collective action. This result indicate that among online networking members, only bridging social capital is needed for initiating collective action. It was established that social capital is an antecedent of willingness to collective action. But this study finding shows that all types of social capital are not promoting collective action. Instead, bridging social capital is promoting willingness to collective action suggesting effective use of connections with broader range of people while initiating collective action efforts.

H₁₁: “There exist significant difference in willingness to collective action with age, gender, marital status etc.”

Considering the direct relationship between intensity of SNS usage, social capital and then social capital to willingness to collective action, it only provides a partial insight into the factors influencing willingness to collective action of social networking members. Thus, it is also critical to understand the effect of demographic variables such as gender, age etc. on one’s willingness to collective action. The following set of hypotheses testing indicate the effect of socio-demographic variables on willingness to collective action:

a) Willingness to Collective Action and Age

H_{11a}: “There exist significant difference in willingness to collective action across age group”

Age is an important variable which influence the collective action efforts of individual members of a social network. Collective actions are usually initiated by youngsters than the old people. Hence, it is assumed that there exist significant difference in willingness to collective action across age group. For testing this hypothesis, ANOVA was done.

Table 5.20: One-way ANOVA Results for Willingness to Collective Action and Age Groups

	Variable	Sum of Squares	Df	Mean Square	F	Sig.
WCA	Between Groups	.175	3	.058	.099	.961
	Within Groups	255.478	431	.593		
	Total	255.653	434			

The table (5.20) shows the one way ANOVA results done on the effect of age group on willingness to collective action. The results shows that there is no significant difference in willingness to collective action across age groups as the significance value is greater than .05 ($p=.199$). Thus ones willingness to collective action is not affected by differences in age group.

b) Willingness to Collective Action and Gender

H_{11b}: “There exist significant difference in willingness to collective action and gender”

Gender is an important variable while studying the willingness to collective action. Literature suggests that there exist significant difference in initiating collective actin efforts among male and female participants of collective actions. Thus, this study assumes that there exist significant difference in willingness to collective action among male and female members of a social network.

In order to test the above stated hypothesis, an independent sample t test was done by keeping willingness to collective action as dependent variable and gender as group variable. The table below shows the independent sample t test results of willingness to collective action and gender. The results shows that there exist significant difference in willingness to collective action between male and female members of SNS. The p value is significant at 5% confidence level (P value <.05).

A further look into the descriptive statistics of male and female members of the SNS shows that male members show a higher willingness to collective action (mean = 3.55) than female members (mean=3.25). Even though the gender distribution of SNS members shows a female domination

in case of number of users, the willingness to collective action is higher among male members than females.

Table 5.21: One-way ANOVA Results of Willingness to Collective Action and Gender

	Variable	t-test for Equality of Means						
		T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
WCA	Equal variances assumed	4.115	433	.000	.29865	.07258	.15600	.44129
	Equal variances not assumed	4.127	423.569	.000	.29865	.07237	.15639	.44090

c) Willingness to Collective Action and Educational Qualification

H_{11c}: “There exist significant difference in willingness to collective action and educational qualification.”

One’s willingness to collective action is also tested with the educational qualification of the respondents. In order to find out whether there exist a significant difference in willingness to collective action against the educational qualification of the respondents or not, one way ANOVA analysis was done. The analysis results are given in the table below. From the results, it is clear that p value is significant ($p < .05$) at 5% level of confidence indicating there is variation in willingness to collective action according to the difference in educational qualification of the members. A descriptive statistics analysis of willingness to collective action and Education qualification reveals that the willingness to collective action

among Graduates (mean=3.47) and Post graduates (mean=3.44) are higher, followed by MPhil/PhD holders (mean=3.18) Plus two (mean=3.25), SSLC (mean=3.03) and Diploma (mean=2.42).

Table 5.22: ANOVA Results of Willingness to Collective Action and Educational Qualification

	Variable	Sum of Squares	Df	Mean Square	F	Sig.
INT	Between Groups	9.544	5	1.909	3.327	.006
	Within Groups	246.110	429	.574		
	Total	255.653	434			

A multiple group comparison was also done in order to find out the groups which show significant difference. The results of multiple comparison show that there exist significant difference among Post graduates and Diploma holders and Graduates and Diploma holders.

d) Willingness to Collective Action and Location

H_{11d}: “There exist significant difference in willingness to collective action and location”

Another important variable which influences one’s willingness to collective action is the location of the respondents. For the study purpose, location is classified into three categories: urban, semi-urban and rural. It is assumed that the willingness to collective action of members might vary according to their location and for testing this ANOVA was done by taking willingness to collective action as dependent variable and location as group variable.

The table below shows the one way ANOVA results of willingness to collective action against location of the members of the SNS. The results show that there exist no significant difference in willingness to collective action according to change in location of the members. The p value is not significant ($p < .05$) indicating location of the members does not affect the willingness to collective action.

Table 5.23: One-way ANOVA Results of Willingness to Collective Action and Location

	Variable	Sum of Squares	Df	Mean Square	F	Sig.
WCA	Between Groups	1.488	2	.744	1.264	.284
	Within Groups	254.166	432	.588		
	Total	255.653	434			

e) Willingness to Collective Action and SNS Membership Acquaintance

H_{11e}: “There exist significant difference in willingness to collective action according to SNS membership acquaintance”

General social networking site usage characteristics such as SNS membership acquaintance, frequency of log in and device used for accessing SNS were also tested with willingness to collective action, to find out whether these characteristics are influencing one’s willingness to collective action efforts.

The table below shows the one way ANOVA results of willingness to collective action according to SNS membership acquaintance. From the results, it is clear that p value is significant ($p < .05$) at 5% level of confidence indicating there is variation in willingness to collective action

according to the difference in years of membership in SNS. A descriptive statistics analysis of willingness to collective action and number of years of membership in SNS reveals that the willingness to collective action is higher for those who have been a member in SNS for more than 4 years which indicate that in the initial years of membership in SNS, the collective action level could be low but with increase in years, one's willingness to collective action also increases.

Table 5.24: One-way ANOVA Results of Willingness to Collective Action and SNS Membership Acquaintance

	Variable	Sum of Squares	Df	Mean Square	F	Sig.
WCA	Between Groups	11.289	5	2.258	3.964	.002
	Within Groups	244.364	429	.570		
	Total	255.653	434			

f) Willingness to Collective Action and Frequency of SNS Log in

H_{11f}: “There exist significant difference in willingness to collective action according to frequency of SNS log in”

Frequency to which the members of SNS log in their profile is the another factor which might influence the willingness to collective action of members. The majority of the respondents were used to log in into SNS daily and it is assumed that those members who are accessing their profile daily would have higher levels of collective action than members who are log in into SNS alternate days and twice in a week.

The table below shows the one way ANOVA results of willingness to collective action with Frequency of log-in into SNS. The results reveal that there p value is significant ($p < .05$) at 5% level of confidence indicating

there is variation in willingness to collective action according to the difference frequency of log in into SNS.

Table 5.25: One-way ANOVA Results of Willingness to Collective Action and Frequency of SNS Log in

	Variable	Sum of Squares	Df	Mean Square	F	Sig.
INT	Between Groups	7.981	2	3.991	6.960	.001
	Within Groups	247.672	432	.573		
	Total	255.653	434			

A descriptive statistics analysis of willingness to collective action and frequency of log in into SNS reveals that the willingness to collective action is higher for those who are log in into SNS daily (mean=3.48) followed by alternative days (mean=3.19) and twice a week (mean=3.06). The results indicate that by one can increase his/her willingness to collective action by log in into SNS daily.

g) Willingness to Collective Action and Device Used for Accessing SNS

H_{11g}: “There exist significant difference in willingness to collective action according to device used for accessing SNS”

With the technological advancements, members of SNS uses various types of devices for accessing their profile. For the study purpose, four devices are taken such as mobile phone, desktop, laptop and tablet. In order to analyze whether one’s willingness to collective action will change according to the devices used or not, ANOVA test was done by taking willingness to collective action as dependent variable and devices as factors.

Table 5.26: One-way ANOVA Results of Willingness to Collective Action and Device Used for Accessing SNS

	Variable	Sum of Squares	Df	Mean Square	F	Sig.
WCA	Between Groups	5.706	3	1.902	3.279	.021
	Within Groups	249.948	431	.580		
	Total	255.653	434			

The above table shows the one way ANOVA results of willingness to collective action with device used for accessing SNS. The results reveal that there p value is significant ($p < .05$) at 5% level of confidence indicating there is variation in willingness to collective action according to the differences in devices used for accessing SNS. A descriptive statistics analysis of willingness to collective action and devices used for accessing SNS reveals that the willingness to collective action is higher for those who are using mobile phone (mean=3.44). Multiple group comparison shows that there exist significant difference between those who are using mobile phone, tablet and laptop with desktop users. The reason could be devices such as mobile phone, tablet and laptop are easy to carry and thereby one can access it from anywhere. But for desktop users, they have to come to their house/office/place where the desktop kept for accessing their SNS profile.

In summary, the demographic variables such as age, gender, educational qualification and location of the respondents and general SNS usage characteristics such as SNS membership acquaintance, frequency of log-in and device used for accessing SNS were selected as independent variables and willingness to collective action as dependent variable for analysing the effect of these independent variables on willingness to collective action. The

results discussed above indicate that from the selected demographic variables, age and location are not significantly affecting willingness to collective action. But, variables such as gender and educational qualification of respondent are significantly affecting one's willingness to collective action.

The 't' test results of gender and willingness to collective action established that there exist significant difference in male and female members of social networking site while organizing willingness to collective action efforts. The level of willingness to collective action among male members is higher than the female members. This finding conveys that the male of social networking sites are more active in mobilizing and initiating collective action than females.

Similarly, the ANOVA results of age and location of respondents with willingness to collective action establish that willingness to collective doesn't vary according to one's age and location. It could be because of the availability and accessibility of social networking sites and thereby to participate in collective action efforts, irrespective of age and location of networking members. Earlier, collective action programmes were limited geographically for contributing to collective action and age was also a limiting factor for joining collective action efforts since majority of the social groups were closed. But with the introduction of social networking sites, geographical constraints are removed and also these sites are easily available and accessible to all. Thus, it can be concluded that it is because of the availability of SNS that location and age become non-significant while analysing the relationship between these two to willingness to collective action.

The ANOVA result show that for those members who acquire or using social networking sites for a longer period of time, say more than 4 years and those who log into these sites daily, possess higher levels of willingness to collective action. This finding suggests that those who are organizing collective action efforts will be able to make those efforts effective by targeting people who are having the above SNS usage characteristics.

5.8 Chapter Summary

The chapter presented the sample profile of both online and offline respondents. The general SNS usage characteristics of the members of SNS were discussed. The hypotheses formulated for the study were analysed. The hypotheses related to intensity of SNS usage and social capital and social capital to one's willingness to collective action were discussed and the effect of background variables on willingness to collective action were also discussed.

.....✪✪.....

Chapter 6

DATA ANALYSIS: INTEGRATED MODEL ANALYSIS

<i>Contents</i>	6.1 <i>Introduction</i>
	6.2 <i>Structural Equation Modelling</i>
	6.3 <i>Partial Least Square</i>
	6.4 <i>Analysis of Measurement Model: Online</i>
	6.5 <i>Analysis of Structural Model: Online</i>
	6.6 <i>Mediation Analysis</i>
	6.7 <i>Moderation Analysis with Personality Variables</i>
	6.8 <i>Analysis of Measurement Model: Offline</i>
	6.9 <i>Analysis of Structural Model: Offline</i>
	6.10 <i>Chapter Summary</i>

This chapter discusses the analysis and results of the survey data gathered in this study. First, the results of the model analysis are presented. To test the hypothesized model, Partial Least Square (PLS) was used to examine the direct and indirect causal relationship among variables. PLS was also used to determine if the data collected supported the hypothesized model. Secondly, series of simultaneous regression equations were used to test mediation and moderation hypothesis. Lastly, the integrated model testing for offline members are discussed.

6.1 Introduction

From the extensive literature review discussed in Chapter 2, an initial conceptual model was proposed for the study with willingness to collective action as dependent variable and intensity of SNS usage, bridging social capital, bonding social capital, cognitive social capital and social trust as independent variables. The literature also emphasizes the need to study the effect of personality traits on the dependent and independent variables under the study. Subsequent analysis of data in Chapter 5 found that there exist significant relationship between intensity of SNS usage to social capital and social capital and willingness to collective action as proposed. At this juncture, an analysis of model integrating independent variables and dependent variable will give a clear idea about the direct and indirect effect of independent variables on the dependent variable. The integrated model for online members was tested first and the same model was replicated among the offline members in order to depict the distinct roles of online and offline social networks in developing social capital and thereby ones' willingness to collective action and to found out how these two social networks namely, online and offline differs in social capital development among individuals.

6.2 Structural Equation Modelling

Structural equation modelling is a confirmatory technique used to determine whether the model developed for the research is valid for data and it is a combination of factor analysis and multiple regressions. Since the study required the hypothesized model to be tested for the best-fit of the data, structural equation modelling was considered the appropriate method for data analysis as it gives more comprehensive overall goodness of fit.

The SEM can be divided into two parts. The measurement model is the part which relates measured variable to latent variable. The structural model is the part that relates latent variables to one another. There are two complementary school of thoughts in force in SEM namely, co-variance based SEM and component based SEM. This study uses component based SEM with Warp PLS 4.0 for the estimation of measurement model and structural model analysis since PLS was considered ideal, if the conditions relating to sample size, independence, or normal distribution are not met, and if the prediction is more important than parameter estimation.

6.3 Partial Least Square

PLS is a variance based SEM analysis technique. The PLS is sometimes called “component-based SEM” in contrast to the covariance-based structural equation modelling. In PLS, the overall model consists of an inner model and an outer model. The inner model (structural model) consists of the relationship between latent variables and the outer model (measurement model) consists of the relationship between latent variables and the measurement indicators. PLS method of SEM (specifically Warp PLS) was chosen because of its ability to handle multicollinearity among the independent variables, robustness in face of data noise and missing data, and the ability to create independent latent variables directly. Sample size requirements for PLS are also different than for a covariance based SEM analysis. PLS appear to work well with smaller sample sizes and also it can handle a larger number of indicators. According to Chin & Newsted (1999) the use of PLS is adequate when:

- A researcher looks to make predictions.

- One is researching a relatively recent or changing model.
- The model being analysed is relatively complex and includes a large number of indicators or latent variables.
- There is a need for formative indicators.
- Data does not meet the usual normality, independent and sample size requirements of other methods.

Although the measurement and structural parameters are estimated together, a PLS model is analyzed and interpreted in two stages: (1) the assessment of the reliability and validity of the measurement model and (2) the assessment of the structural model. The main purpose of assessing the measurement model is to establish the reliability and validity of an instrument before making conclusions about the relationship between latent variables under the study. And it is important to ascertain the validity and reliability of the measurement model before proceeding to build a structural model to examine the relationships among variables under the study (Fornell & Larcker, 1981).

6.4 Analysis of Measurement Model: Online

This section discusses the analysis of the measurement model. The measurement model in PLS-SEM and reflective measures under the study are assessed by looking into the individual item reliability (indicator reliability), indicator consistency reliability (Composite reliability), convergent validity and discriminant validity. Construct validation through CFA (i.e. convergent and discriminant validity) and reliability testing (i.e. Cronbach Alpha) is appropriate for reflective constructs (Mackenzie et al., 2005).

6.4.1 Reliability Analysis

Reliability analysis tests whether a scale consistently reflects the subset it measures (Churchill, 1979; Nunnally & Bernstein, 1994). There are multiple methods for ensuring reliability of the scales like retest, alternative form, split-halves, internal consistency etc. Among these methods, the internal consistency method is most commonly used one and the Cronbach's Alpha is the widely used measure because of it being a conservative estimate of reliability and easy to administer (Carmines & Zeller, 1979). In PLS, reliability is ensured by looking into two reliability measures such as individual item reliability and composite reliability. Individual item reliability is evaluated by examining the loadings of the measures with the constructs. The indicator loadings of the constructs should be higher than 0.7 (Hair et al., 2011) and composite reliability of the scales was evaluated based on composite reliability indexes. It should be greater than 0.7 (Hair et al., 2010).

Table below shows the composite reliability and Cronbach's alpha coefficients for the sample. Both of these coefficients are above the 0.7 recommended threshold, meaning the instrument used has adequate reliability (Nunnally, 1978).

Table 6.1: Reliability Measures

Construct	INT	BRD	BOND	ST	COG	WCA
Cronbach's Alpha	0.826	0.894	0.857	0.835	0.836	0.868
Composite Reliability	0.871	0.913	0.891	0.884	0.878	0.899

6.4.2 Validity Analysis

Validity determines whether the scale truly measures what it was intended to measure. Validity of the measures under the study are assessed with convergent validity and discriminant validity.

a) Convergent Validity

Convergent validity refers to the degree to which two measures of constructs that theoretically should be related, are in fact related. We can ensure the convergent validity by examining the loadings of indicators. A measurement instrument has good convergent validity if the question statements or the measurement items associated with each latent variable are understood by the respondents in the same way as they were intended by the designer of the question statements. Two criteria are recommended in order to conclude whether the measurement model has acceptable convergent validity or not: that the p values associated with loadings be equal to or lower than 0.05; and that the loadings be equal to or greater than 0.5 (Hair et al., 1987; 2009). The convergent validity measures of the all latent variables are given in the table below. P values are provided for indicators associated with latent variables in the last column. These p values are often referred to as validation parameters of a confirmatory factor analysis (Kline, 1998; Schumacker & Lomax, 2004), since it results from a test of a model where the relationships between indicators and latent variables are defined beforehand. The construct loading values from the table show that, the items load well with the constructs with a loading above 0.5 and p values significant for all indicators. Hence, it can be concluded that the convergent validity conditions have been met.

Table 6.2: Convergent Validity Measures

Variable	INT	BRD	BOND	ST	COG	WCA	SE	P value
INT1	0.998	0.032	0.023	-0.046	0.033	-0.015	0.042	<0.001
INT2	0.950	0.174	0.024	0.153	-0.114	-0.175	0.042	<0.001
INT3	0.984	-0.130	-0.093	0.039	0.037	0.048	0.042	<0.001
INT4	0.989	-0.104	-0.027	0.090	0.044	-0.011	0.042	<0.001
INT5	0.955	0.219	0.132	-0.121	0.029	-0.079	0.042	<0.001
INT6	0.987	-0.122	0.002	0.036	-0.101	0.002	0.042	<0.001
INT7	0.774	-0.142	0.041	-0.298	0.119	0.526	0.042	<0.001
INT8	0.865	0.188	-0.008	-0.372	0.062	0.274	0.042	<0.001
BR1	-0.017	0.990	0.042	0.006	0.102	-0.084	0.042	<0.001
BR2	0.100	0.978	0.063	0.055	0.025	-0.162	0.042	<0.001
BR3	-0.035	0.983	-0.063	0.157	0.056	0.004	0.042	<0.001
BR4	0.025	0.941	-0.197	0.229	-0.094	-0.115	0.042	<0.001
BR5	-0.006	0.996	-0.017	0.038	-0.071	0.031	0.042	<0.001
BR6	-0.006	0.983	-0.044	-0.122	0.127	0.035	0.042	<0.001
BR7	0.014	0.996	-0.035	-0.057	-0.007	-0.048	0.042	<0.001
BR8	-0.112	0.974	0.082	-0.163	0.079	-0.004	0.042	<0.001
BR9	-0.070	0.959	0.067	-0.121	-0.013	0.238	0.042	<0.001
BR10	0.155	0.908	0.192	-0.055	-0.268	0.197	0.042	<0.001
BON1	0.059	-0.012	0.981	0.177	-0.030	-0.040	0.042	<0.001
BON2	0.065	-0.028	0.997	-0.002	-0.029	-0.016	0.042	<0.001
BON3	0.089	0.064	0.988	-0.020	-0.107	-0.024	0.042	<0.001
BON4	-0.166	0.032	0.980	-0.010	0.108	-0.005	0.042	<0.001
BON5	-0.137	0.091	0.974	-0.022	0.052	-0.144	0.042	<0.001
BON6	-0.022	-0.082	0.993	-0.009	-0.055	0.054	0.042	<0.001
BON7	0.224	-0.131	0.866	-0.201	0.132	0.353	0.042	<0.001
TR1	-0.162	0.080	0.195	0.944	0.167	0.101	0.042	<0.001
TR2	-0.031	0.264	0.129	0.941	-0.127	-0.109	0.042	<0.001
TR3	0.134	-0.087	-0.226	0.953	0.063	-0.101	0.042	<0.001
TR4	-0.042	-0.012	-0.048	0.997	0.017	-0.024	0.042	<0.001
TR5	0.070	-0.243	0.035	0.938	-0.133	0.193	0.042	<0.001
COG1	0.164	-0.151	0.009	0.238	0.909	-0.260	0.042	<0.001
COG2	-0.113	0.009	0.013	-0.202	0.971	0.051	0.042	<0.001
COG3	-0.024	-0.086	0.136	-0.357	0.918	0.056	0.042	<0.001
COG4	-0.175	0.105	-0.006	0.114	0.971	-0.039	0.042	<0.001
COG5	0.119	-0.180	-0.123	0.215	0.924	0.197	0.042	<0.001
COG6	0.035	0.120	-0.082	-0.084	0.985	-0.028	0.042	<0.001
COG7	0.132	0.183	0.078	0.398	0.874	-0.144	0.042	<0.001
CA1	0.110	-0.114	-0.058	0.088	0.049	0.981	0.042	<0.001
CA2	0.150	-0.103	-0.123	0.131	0.079	0.963	0.042	<0.001
CA3	0.083	-0.210	-0.057	-0.095	0.078	0.965	0.042	<0.001
CA4	-0.120	0.078	0.010	-0.038	-0.056	0.987	0.042	<0.001
CA5	-0.091	0.092	0.057	-0.049	-0.003	0.989	0.042	<0.001
CA6	-0.083	0.269	0.362	-0.134	-0.227	0.849	0.042	<0.001
CA7	-0.150	0.215	-0.034	0.088	-0.036	0.960	0.042	<0.001

b) Discriminant Validity of Measures

Discriminant validity tests whether the latent variables differ from each other (Fornell & Larcker, 1981). It is assessed by comparing the Average Variance Extracted (AVE) value associated with each construct to the correlations among constructs. According to Fornell & Larcker (1981), discriminant validity is proven if a latent variable's AVE is larger than the common variances (squared correlations) of this latent variable with any other of the model's constructs. In the table below, the square root of AVE (values shown in grey shaded columns) values are higher than the off-diagonal values (which represent the inter-construct correlations), which is the condition for discriminant validity (Peng & Lai, 2012).

Table 6.3: Discriminant Validity Measures

Variable	INT	BRD	BOND	ST	COG	WCA
INT	0.695	0.548	0.482	0.321	0.361	0.344
BRD	0.548	0.716	0.489	0.514	0.558	0.617
BOND	0.482	0.489	0.737	0.523	0.397	0.359
ST	0.321	0.514	0.523	0.778	0.597	0.503
COG	0.361	0.558	0.397	0.597	0.713	0.423
WCA	0.344	0.617	0.359	0.503	0.423	0.750

6.5 Analysis of Structural Model: Online

The structural model covers the relationships among hypothetical constructs. Latent variables that only predict other latent variables are called exogenous variables, while a latent variable that is a dependent variable in at least one causal relationship is called an endogenous variable.

In contrast to covariance based approaches, the PLS model does not allow statistical tests to measure the calibrated model's overall goodness, which is mainly due to the assumption of distribution-free variance. A logical metric for judging the structural model is the endogenous variables' determination coefficient (R^2). Similar to a multiple regression's coefficients, the evaluation of the model's quality should also be based on the path coefficients' directions and significance levels (Chin, 1999).

Warp PLS estimates 'p' values for the path coefficients in the model. These p values are necessary to interpret the results of the study. If $p < \alpha$, then the null hypothesis is rejected at the level of statistical significance. This means that the probability of getting the data given the null hypothesis is $< .05$. In other words, if the null hypothesis were true and the study was to be repeated a number of times, then less than 5% of the studies would be more inconsistent with the null hypothesis than the achieved results (Kline, 2004&2009).

6.5.1 Model Fit and Quality Indices

The analysis of the structural model of the study can be done with ten model fit and quality indices like Average Path Co-efficient (APC), Average R-squared (ARS), Average Adjusted R-squared (AARS), Average block Variance Inflation Factor (AVIF), Average Full-collinearity VIF (AFVIF), Tenenhaus GOF (GOF), Sympson's Paradox Ratio (SPR), R-squared Contribution Ratio (RSCR), Statistical Suppression Ratio (SSR) and Non Linear Bivariate Causality Direction Ratio (NLBCDR). All these indices are reported under the table below:

Table 6.4: Model Fit Indices

Fit Index	Value	Threshold Limit
Average Path Coefficient (APC)	0.304	P<0.001
Average R-squared (ARS)	0.305	P<0.001
Average Adjusted R-squared (AARS)	0.302	P<0.001
Average Block VIF (AVIF)	1.441	ideally ≤ 3.3
Average Full Collinearity VIF (AFVIF)	1.862	ideally ≤ 3.3
Tenenhaus GoF (GoF)	0.404	large ≥ 0.36
Sympson's Paradox Ratio (SPR)	0.900	ideally = 1
R-squared Contribution Ratio (RSCR)	1.000	ideally = 1
Statistical Suppression Ratio (SSR)	1.000	acceptable if ≥ 0.7
Nonlinear Bivariate Causality Direction Ratio (NLBCDR)	1.000	acceptable if ≥ 0.7

It is recommended that the p values for APC, ARS and AARS be equal to or lower than 0.05; i.e., significant at 0.05 level. From the table results, it is clear that APC, ARS and AARS values of the model are significant at 0.05 level.

The next two indices such as AVIF and AFVIF indicate the multi-collinearity issue with the variables under the study. High AVIF and AFVIF values may results from the inclusion of new latent variables that overlap in meaning with existing latent variables. It is recommended that both AVIF and AFVIF be reported in studies and it should be equal to or lower than 3.3, particularly in models where most variables are measured with two or more indicators. In this study all the variables are measured through more than three indicators. And the AVIF and AFVIF values are in the acceptable range of below ≤ 3.3 indicating reduced collinearity between variables.

The next fit index, GOF was interpreted with the Wetzels et al. (2009) thresholds values for the GOF: small if equal to or greater than 0.1, medium if equal to or greater than 0.25 and large if equal to or greater than 0.36. As per this study results, the GOF value is 0.404 indicating a larger fit which suggests that the explanatory power of this model is large to be considered acceptable.

The SPR index is a measure of the extent to which a model is free from Simpson's paradox instances (Pearl, 2009; Wagner, 1982). A Simpson's paradox instance is a possible indication of a causality problem, suggesting that a hypothesized path is either implausible or reversed. Ideally the SPR should be equal to 1. Here the analysis results shows that SRS is 1.00 indicating that there are no instances of Simpson's paradox in the model. RSCR index is a measure of the extent to which a model is free from negative R-squared contributions (Pearl, 2009; Wagner, 1982) which occur together with Simpson's paradox instances. The threshold values of RSCR is same as that of SPR. Here, the RCSR reported is 1.00 meaning that there are no negative R squared contributions in the model. The SSR index is a measure of the extent to which a model is free from statistical suppression instances (MacKinnon et al., 2000). Like Simpson's paradox instance, a statistical suppression instance is a possible indication of causality problem (Spirtes et al., 1993). Acceptable value of SSR are equal to or greater than 0.7. In this study, the reported SSR is 1.00 suggesting all the paths in the model are free from statistical suppression.

6.5.2 Path Co-Efficient and p Values for Structural Model

Table (6.5) below shows the path coefficients and significance of the relationships among variables under the study. Path coefficients of structural

model represent standardized beta coefficients. First four structural paths represent the relationship between intensity of SNS usage and social capital (bridging, bonding, and cognitive) and social trust. The next two structural paths represent the relationship between social trust and bridging social capital and social trust and bonding social capital. The last four structural path given in the table indicate the relationship between social capital (bridging, bonding, cognitive), social trust and willingness to collective action. All the paths were significant except the relationship between bonding social capital and willingness to collective action and cognitive social capital and willingness to collective action.

Table 6.5: Path Co-efficient and Significance of Relationship

Structural Path	Path co-efficient	P values	Std. error	Effect size
INT → TR	.374	<0.001	0.042	0.140
INT → COG	.381	<0.001	0.042	0.145
INT → BRD	.417	<0.001	0.042	0.215
INT → BOND	.346	<0.001	0.042	0.173
TR → BRD	.369	<0.001	0.042	0.193
TR → BOND	.396	<0.001	0.042	0.209
TR → WCA	.254	<0.001	0.042	0.129
BRD → WCA	.485	<0.026	0.042	0.301
BOND → WCA	.001	0.487	0.042	0.001
COG → WCA	.012	0.390	0.042	0.005

6.5.3 R Squared Co-Efficient Results

R square reflects the level or share of the latent construct's explained variance and therefore measures the regression function's "goodness of fit" against the empirically obtained manifest items (Backhaus et al., 2003). R^2 is

a normalized term that can assume values between 0 and 1. No generalizable statement can be made about acceptable threshold values of R^2 . However, the larger the R^2 is, the larger the percentage of variance explained. According to Chin (1998), R^2 of 0.67 is termed as substantial, 0.33 as moderate and 0.19 as weak.

Table 6.6: R square Co-efficient Results

Variable	BRD	BOND	ST	COG	WCA
R square	0.423	0.382	0.140	0.145	0.434

R square results show that goodness of fit of variables such as bonding social capital, bridging social capital and willingness to collective action indicate moderate fit since the R square value is greater than 0.33. But, in the case of social trust and cognitive social capital, the R square indicate a weak fit.

6.5.4 Q Squared Coefficients Results

Q squared coefficient is a nonparametric measure traditionally calculated via blindfolding. Q squared coefficient is used for the assessment of the predictive validity (relevance) associated with each latent variable block in the model, through the endogenous latent variable that is the criterion variable in the block. Acceptable predictive validity in connection with an endogenous latent variable is suggested by a Q-squared coefficient greater than zero.

Table 6.7: Q Squared Co-efficient Results

Variable	BRD	BOND	ST	COG	WCA
Q square	0.425	0.384	0.139	0.146	0.437

The table results show that all the variables have acceptable predictive validity as Q-squared coefficient of all the variables are greater than zero.

6.5.5 Integrated Model: Online

The model in the Figure (Fig.6.1) presents all the variables as well as the links representing the hypothesized effects of this study. The latent variables in this analysis are represented by ovals. Each link between two variables represents a hypothesized effect. Those links that were found to be non-significant in the analysis are represented by dotted arrows. Those links that were found to be significant are represented by solid arrows. For all the relationships, the B path coefficients are shown.

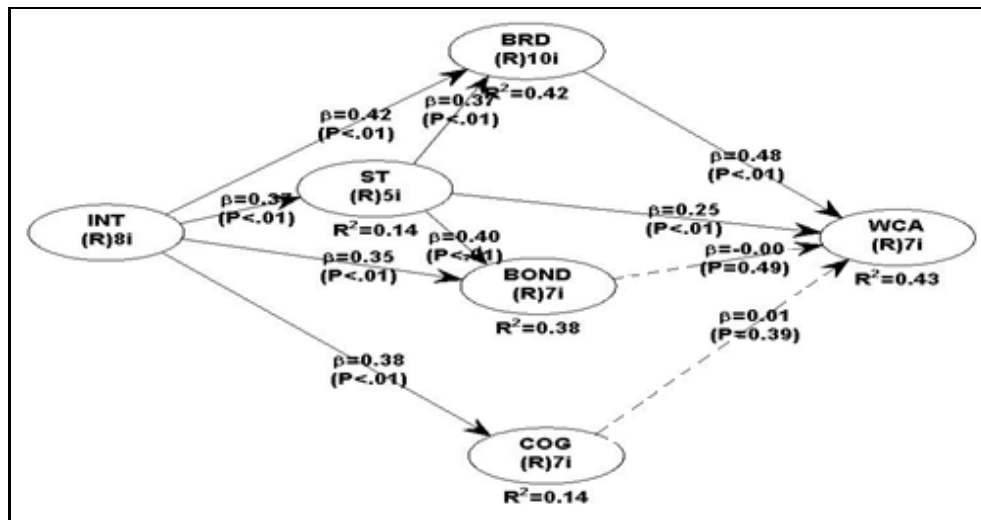


Fig. 6.1: Integrated Model – Online

The model tested indicates that willingness to collective action is the dependent variable and intensity of SNS usage as independent variable, and social trust, bridging social capital, bonding social capital and cognitive social capital as mediating variable. The analysis results of tested model reveal

that the model explains 43% variation in willingness to collective action because of the effect of independent variable and mediating variables under the study as the R^2 value of the dependent variable is 0.43. The relationship between intensity of SNS usage to bridging social capital ($p < .01$, $B = .42$), intensity of SNS usage to social trust ($p < .01$, $B = .37$), intensity of SNS usage to bonding social capital ($p < .01$, $B = .35$) and intensity of SNS usage to cognitive social capital ($p < .01$, $B = .38$) are significant as proposed.

Additionally, the relationship between social capital and willingness to collective action were given in the model itself. From the model, it is clear that bridging social capital ($p < .01$, $B = .48$), and social trust ($p < .01$, $B = .25$) significantly contributing to willingness to collective action. But, the relationship between bonding social capital and willingness to collective action ($p > .01$) and cognitive social capital and willingness to collective action ($p > .01$) were not significant.

The Structural Equation Modelling (SEM) show that social capital (bridging, bonding, cognitive and social trust) are acting as the intervening variables on the relationship between intensity of SNS usage and one's willingness to collective action. As conceptualized initially, intensity of SNS usage significantly influence all the social capitals namely, bridging social capital, bonding social capital, cognitive social capital and social trust, in such a way that the relationship between intensity of SNS usage and bridging social capital are much stronger than other capitals. But the relationship between cognitive social capital and willingness to collective action and the relationship between bonding social capital and willingness to collective action were found to be not significant indicating bridging social

capital as the strongest predictor of willingness to collective action followed by social trust. Thus, the framework of social capital proposed for social networking members is working and intensity of SNS usage creates social capital and which in turn affects one's willingness to collective action.

It is also noted that in the initial hypothesis testing part, the relationship between bonding social capital and willingness to collective action indicated a significant positive relationship. But, in the integrated model analysis, the same relationship found to be non-significant among online social networking members. This finding indicates that among online social network context, bridging social capital and social trust are enough for mobilizing collective action.

6.6 Mediation Analysis

Baron & Kenny (1986) approach was used for testing the mediation effect of social trust on the relationship between intensity of SNS usage and bridging social capital. Baron & Kenny (1986), Judd & Kenny (1981), and James & Brett (1984) discussed four steps in establishing mediation:

- Step 1:* There must a causal relationship between independent variable, X and dependent variable, Y.
- Step 2:* The independent variable, X should be correlated with the mediating variable, M.
- Step 3:* The mediating variable, M should have a causal relationship with the dependent variable, Y.
- Step 4:* The effect of independent variable on dependent variable must be lower than the direct relationship between independent and dependent variable when the mediating variable is controlled.

H₁₂: “Social trust mediates the relationship between intensity of SNS usage and bridging social capital.”

Warp PLS was used to test the significance of a mediating effect of a variable M, which is hypothesized to mediate the relationship between two other variables X and Y, by using Baron & Kenny’s (1986) criteria. In order to do the mediation analysis, two models were built. The first model was drawn with two variables X pointing at Y, without mediation variable (M) being included in the model. The second model was drawn with Mediating variable (X pointing at Y, X pointing at M and M pointing at Y).

Table 6.8: Mediation Analysis (Bridging Social Capital): Path Co-efficient

Path	Path Co-efficient	R ²	P value
INT → BRDSC	.56	.31	0.000
INT → ST	.38	.15	0.000
ST → BRDSC	.53	.27	0.000
INT → BRDSC (ST controlled)	.42	.43	0.000

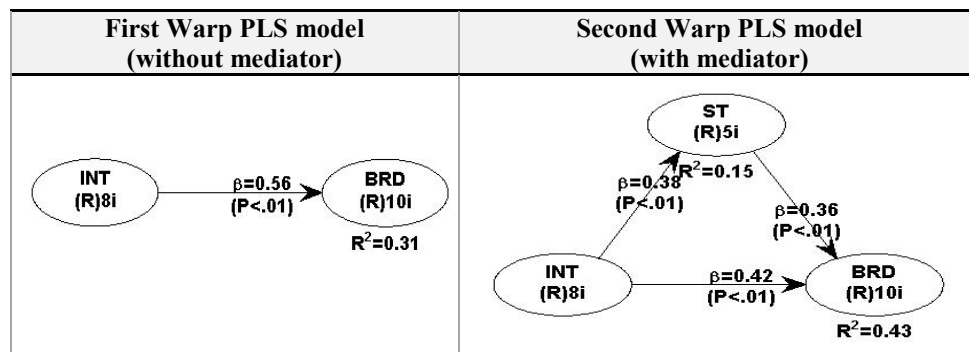


Fig. 6.2: Models Showing the Mediating Effect of Social Trust on the Relationship between Intensity of SNS Usage and Bridging Social Capital

The figures (fig. 6.2) show the two models created for undertaking a mediating effect significance test. The mediating variable is social trust and it is hypothesized that social trust mediates the relationship between intensity of SNS usage and bridging social capital.

In the first model, the direct relationship between intensity of SNS usage and bridging social capital is depicted and it is significant ($p < .01$, $B = 0.56$). In the second model, all the paths are significant including the direct effect of intensity of SNS usage and bridging social capital, but the strength of the direct relationship decreased by 0.14 ($B = 0.42$) indicating a partial mediation. Thus, it can be concluded that social trust partially mediates the relationship between intensity of SNS usage and bridging social capital.

H₁₃: “Social trust mediates the relationship between intensity of SNS usage and bonding social capital.”

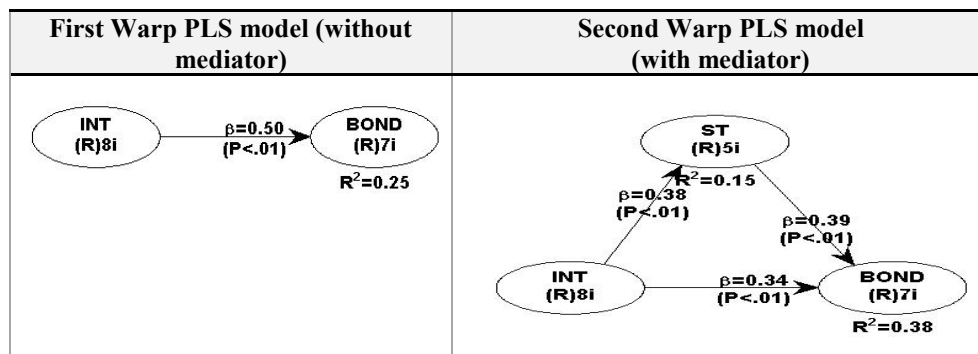


Fig. 6.3: Models Showing the Mediating Effect of Social Trust on the Relationship between Intensity of SNS Usage and Bonding Social Capital

The next hypothesis which indicates social trust mediates the relationship between intensity of SNS usage and bonding social capital is

tested by drawing two models: one without mediator and the second one with mediator. The figure 6.3 show the two models created for a mediating effect significance test. The mediating variable is social trust and it is hypothesized that social trust mediates the relationship between intensity of SNS usage and bonding social capital.

Table 6.9: Mediation Analysis (Bonding Social Capital): Path Co-efficient

Path	Path co-efficient	R ²	P value
INT→ BONDSC	.50	.25	0.000
INT→ ST	.38	.15	0.000
ST → BONDSC	.53	.28	0.000
INT→ BONDSC (ST controlled)	.34	.38	0.000

From the first model, it is clear that the direct relationship between intensity of SNS usage and bonding social capital is significant ($p < .01$, $B = 0.50$). In the second model, all the paths are significant including the direct effect of intensity of SNS usage and bonding social capital, but the strength of the direct relationship decreased by 0.16 ($B = 0.34$) indicating a partial mediation. Thus, it can be concluded that social trust partially mediates the relationship between intensity of SNS usage and Bonding social capital.

The mediation analysis of social trust on the relationship between intensity of SNS usage and bridging social capital and bonding social capital indicates that trust among networking members serves as a foundation for bridging and bonding social capital. Well-developed trusted relationships allow the members to effectively share information (bridging social

capital) and creates emotional attachment (bonding social capital) with other members of the network. Moreover, bridging social capital and bonding social capital are mediated by social trust when analysing the relationship between intensity of SNS usage and these two capitals. This suggests that in order to enjoy the full benefits of bridging and bonding social capital, one must possess higher levels of social trust with the other members of their social network in addition to intensive use of SNS. Thus, social trust is necessary for promoting bridging and bonding social capital in line with intensive use of SNS. Hence, it can be summarized that not only the intensive use of social networking sites promotes social capital, but also the social trust which is considered as a necessary pre-condition for developing bridging and bonding social capitals. Thus, in order to enjoy the full benefits of bridging and bonding social capital, one must first acquire high level of trust with networking members and this trust will in turn increase one's social capital with intensive use of SNS.

6.7 Moderation Analysis with Personality Variables

Three of the Big-5 personality characteristics (extraversion, agreeableness, and conscientiousness) are taken as control variables based on prior research findings that some aspects of personality are predictive of the development of network ties (Baer, 2010; Dougherty, Cheung, & Florea, 2008). The moderation analysis of personality traits on the relationship between intensity of SNS usage and social capital is discussed in the following sections.

H₁₄: “Personality traits significantly moderates the relationship between intensity of SNS usage and social capital (bridging social capital, bonding social capital and cognitive social capital).”

6.7.1 Extraversion

The diagram (Fig6.4) shows the moderating analysis of extraversion on the relationship between intensity of SNS usage and social capital. The moderating influence of extraversion is found to be significant at 0.01 level of significance ($p < 0.05$) and the path coefficient is positive ($B = 0.09$) on the relationship between intensity of SNS usage and bonding social capital and ($B = 0.15$) on the relationship between intensity of SNS usage and cognitive social capital.

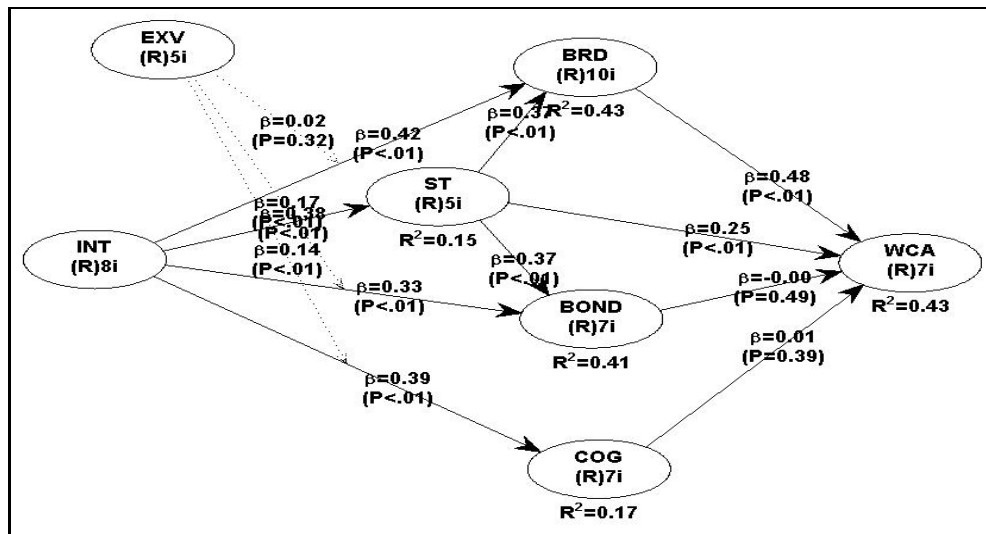


Fig. 6.4: Moderating Effect of Extraversion

Since it is a positive path co-efficient of an effect that moderates a positive direct relationship, the relationship between intensity of SNS usage and social capital (bonding and cognitive) will go up in value as extraversion

increases. That is the interaction will cause social capital to move towards neutral or positive side as extraversion increases. But, the relationship between intensity of SNS usage and bridging social capital was found to have no significantly moderated by extraversion.

Table 6.10: Moderating (Extraversion) Paths and Path Co-efficient

Path	Path co-efficient	P value	R ²
INT → BRD	0.02	0.32	0.43
INT → BOND	0.17	<.01	0.41
INT → COG	0.14	<.01	0.17

The first graph (Figure 6.5) shows the relationship between intensity of SNS usage and bonding social capital in high and low extraversion situations. At low intensity level, the relationship between intensity of SNS usage and bonding social capital is high for introverts, but when the intensity of SNS usage increased the bonding social capital of high extraverts are enhancing which indicate that extraverts can increase their bonding social capital with intensive use of SNS. In other words, extraverts can predict the bonding social capital with intensity of SNS usage. Or the relationship between intensity of SNS usage and bonding social capital is strong among extraverts than introverts. At low intensity level, the cognitive social capital of introverts are higher compared to the high extraverts. But, when the intensity of SNS usage increases, cognitive social capital of both high and low extraverts are also increasing but the high extravert's cognitive social capital is much higher than the low introverts, which indicates that high extraverts can enhance their cognitive social capital with intensive use of SNS than introverts.

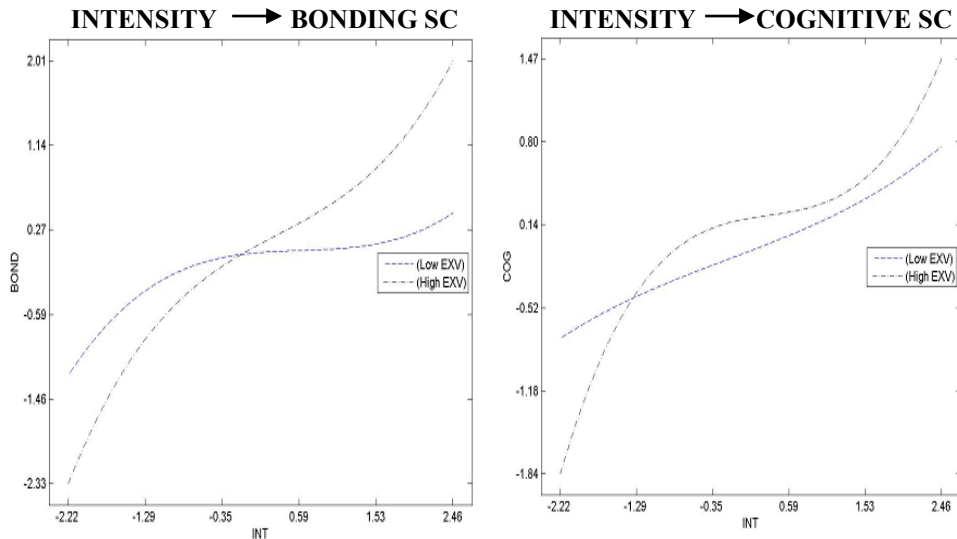


Fig. 6.5: Plot of High and Low Levels of Extraversion

6.7.2 Agreeableness

The diagram (Fig. 6.6) shows the moderating analysis of agreeableness on the relationship between intensity of SNS usage and social capital. The moderating influence of agreeableness was found to be significant at 0.01 level of significance ($p < 0.05$) and the path coefficient was positive ($B = 0.16$) on the relationship between intensity of SNS usage and cognitive social capital. Since, it is a positive path co-efficient of an effect that moderates a positive direct relationship, the relationship between intensity of SNS usage and social capital (cognitive) will go up in value as agreeableness increases. That is the interaction will cause social capital to move towards neutral or positive side as agreeableness increases. But the moderating influence of agreeableness on the relationship between intensity of SNS usage and bridging social capital and the relationship between intensity of SNS usage and bonding social capital found to be not significant.

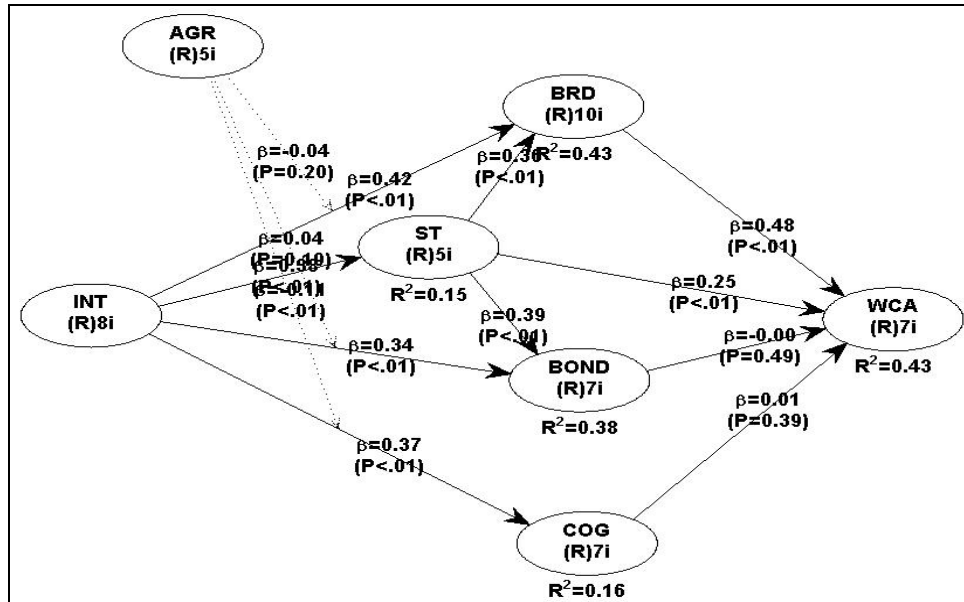


Fig. 6.6: Moderating Effect of Agreeableness

The graph below (Fig. 6.7) shows the high and low levels of agreeableness on the relationship between intensity of SNS usage and cognitive social capital. At low intensity level, the cognitive social capital of those who are low agreeable are higher compared to those who are high agreeable in nature. But, when the intensity of SNS usage increases, cognitive social capital of both who are high and low agreeable in nature are also increasing but the high cognitive social capital of those who are highly agreeable in nature is much higher than the low agreeable people. This indicates that those who are high agreeable in nature can enhance their cognitive social capital with intensive use of SNS than those who are low agreeable in nature.

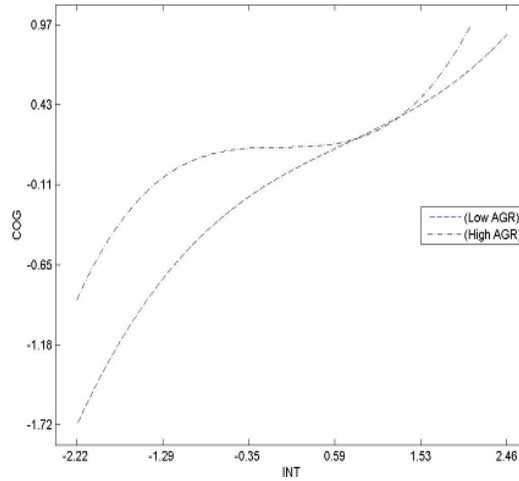


Fig. 6.7: Plot of High and Low Levels of Agreeableness

The following table shows the moderated path and path co-efficient. The p value of the respective paths are also given.

Table 6.11: Moderating (Agreeableness) Paths and Path Co-efficient

Path	Path Co-efficient	P value	R ²
INT → BRD	0.01	0.44	0.43
INT → BOND	0.03	0.23	0.39
INT → COG	0.16	<.01	0.16

6.7.3 Conscientiousness

The figure 6.8 shows the moderating analysis of conscientiousness on the relationship between intensity of SNS Usage and Social capital. The moderating influence of conscientiousness was found to be significant at 0.01 level of significance ($p < 0.05$) and the path coefficient was positive ($B = 0.13$) on the relationship between intensity of SNS usage and cognitive social capital. Since, it is a positive path co-efficient of an effect that moderates a positive direct relationship, the relationship between intensity of SNS usage and cognitive social capital will go up in value as conscientiousness

increases. That is the interaction will cause social capital to move towards neutral or positive side as conscientiousness increases. But, the moderating influence of conscientiousness on the relationship between intensity of SNS usage and bridging social capital, relationship between intensity of SNS usage and bonding social capital were found to be not significant.

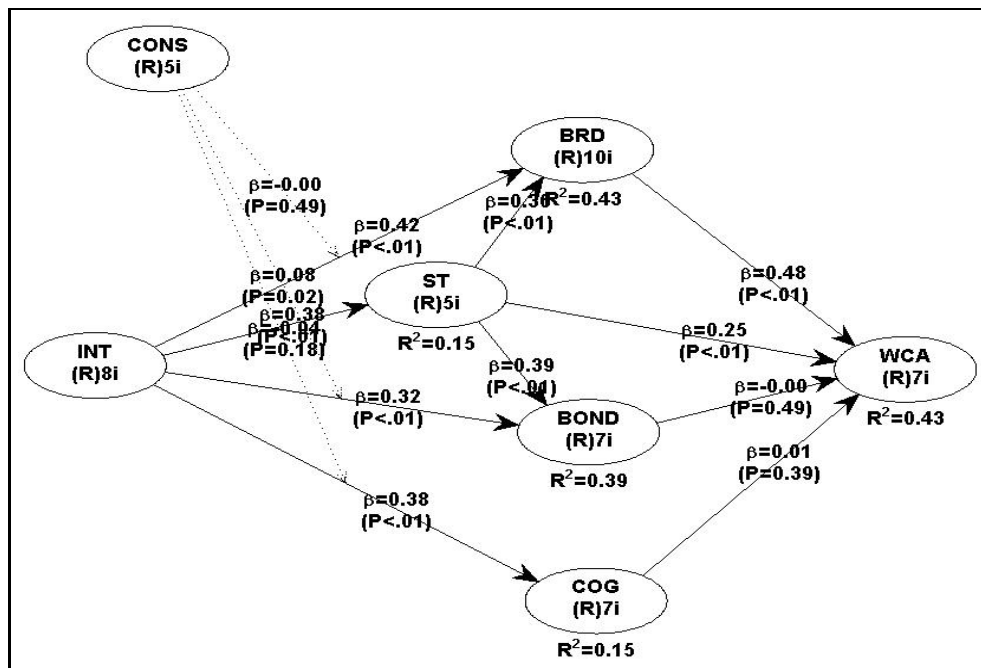


Fig. 6.8: Moderating Effect of Conscientiousness

The graph (Fig. 6.9) shows the high and low levels of conscientiousness on the relationship between intensity of SNS usage and cognitive social capital. At low intensity level, the cognitive social capital of those who are low conscientious are higher compared to those who are high conscientious in nature. But when the intensity of SNS usage increases, cognitive social capital of both the categories, i.e., those who are high and low conscientious in nature are also increasing but the cognitive social capital of those who are highly

conscientious in nature is much higher than the low agreeable people. This indicates that those who are high conscientious can enhance their cognitive social capital with intensive use of SNS than those who are low conscientious.

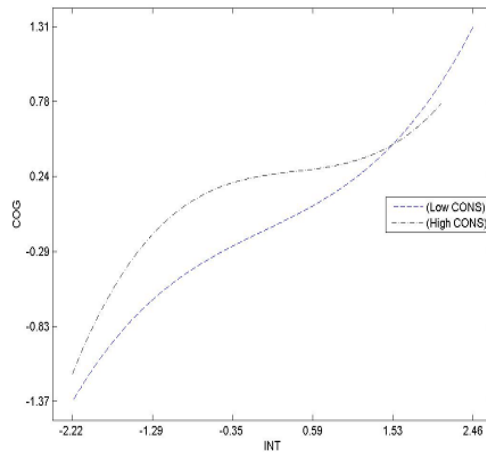


Fig. 6.9: Plot of High and Low Levels of Conscientiousness

Table 6.12: Moderating (Conscientiousness) Paths and Path Co-efficient

Path	Path co-efficient	P value	R ²
INT → BRD	0.05	0.13	0.43
INT → BOND	0.08	0.02	0.38
INT → COG	0.13	0.17	0.15

The hypothesized model was tested among the online social networking members. The integrated model discussed above shows that the data fits the model for online members. The next section of this chapter deals with the replication of the same model testing among offline social networking members.

6.8 Analysis of Measurement Model: Offline

The results of the following analyses depict how the model runs for offline social networking members. In order to analyze the social capital

framework proposed for offline context, reflective measures under the study are assessed by looking into the individual item reliability (indicator reliability), indicator consistency reliability (Composite reliability), convergent validity and discriminant validity.

6.8.1 Reliability Analysis

Individual item reliability is evaluated by examining the loadings of the measures with the constructs. The indicator loadings of the constructs should be higher than 0.7 (Hair et al., 2011). Composite reliability of the scales was evaluated based on composite reliability indexes. It should be greater than 0.7 (Hair et al., 2010).

Table 6.13: Reliability Measures

Construct	INT	BRSC	BOSC	COSC	STR	WCA
Cronbach's Alpha	0.780	0.904	0.878	0.890	0.816	0.870
Composite Reliability	0.837	0.921	0.906	0.914	0.872	0.901

6.8.2 Validity Analysis

Validity of the measures under the study are assessed with convergent validity and discriminant validity.

a) Convergent Validity

Convergent validity refers to the degree to which two measures of constructs that theoretically should be related, are in fact related. We can ensure the convergent validity by examining the loadings of indicators. The rule of convergent validity is that the loadings of all indicators should be 0.50 (Hair et al., 2010) or above and they should be significant at $p \geq 0.05$ and $t \geq 2.0$ (Fornell & Larcker, 1981).

Table 6.14: Convergent Validity Measures

Variable	INT	BRD	BOND	ST	COG	WCA	SE	P value
INT1	0.970	0.018	0.185	-0.069	0.140	-0.022	0.043	<0.001
INT2	0.962	-0.017	-0.212	0.093	0.142	-0.003	0.043	<0.001
INT3	0.982	0.155	0.006	-0.095	0.042	0.016	0.043	<0.001
INT4	0.986	-0.067	-0.004	0.092	-0.046	-0.111	0.043	<0.001
INT5	0.988	0.037	-0.003	-0.144	-0.025	0.030	0.043	<0.001
INT6	0.978	-0.133	0.148	0.012	0.003	0.062	0.043	<0.001
INT7	0.795	0.100	-0.265	0.083	-0.530	0.011	0.043	<0.001
INT8	0.842	0.133	-0.143	0.067	-0.478	0.143	0.043	<0.001
BR1	0.022	0.999	0.008	0.029	0.015	0.006	0.043	<0.001
BR2	0.150	0.972	0.073	-0.132	-0.088	0.049	0.043	<0.001
BR3	0.070	0.991	-0.034	-0.034	-0.098	0.028	0.043	<0.001
BR4	0.097	0.936	0.237	0.177	-0.150	-0.073	0.043	<0.001
BR5	0.007	0.988	0.112	0.080	-0.063	0.002	0.043	<0.001
BR6	-0.009	0.988	0.056	0.023	0.143	0.015	0.043	<0.001
BR7	-0.050	0.959	-0.222	-0.080	0.113	0.100	0.043	<0.001
BR8	-0.147	0.970	0.090	-0.092	0.118	-0.087	0.043	<0.001
BR9	0.041	0.989	-0.129	0.057	-0.022	-0.024	0.043	<0.001
BR10	-0.162	0.977	-0.132	0.030	-0.025	-0.030	0.043	<0.001
BON1	0.022	0.373	0.903	-0.088	0.150	-0.125	0.043	<0.001
BON2	0.002	-0.037	0.989	0.097	-0.084	-0.058	0.043	<0.001
BON3	-0.051	0.129	0.981	0.049	-0.111	0.068	0.043	<0.001
BON4	-0.007	-0.013	0.997	-0.010	0.030	-0.073	0.043	<0.001
BON5	-0.097	-0.116	0.982	0.063	-0.070	-0.057	0.043	<0.001
BON6	0.071	-0.168	0.971	-0.006	-0.065	0.138	0.043	<0.001
BON7	0.090	-0.121	0.947	-0.145	0.176	0.167	0.043	<0.001
TR1	0.014	0.105	-0.182	0.972	-0.000	0.106	0.043	<0.001
TR2	-0.002	0.001	-0.088	0.979	-0.135	0.122	0.043	<0.001
TR3	-0.084	-0.068	-0.193	0.975	-0.035	0.006	0.043	<0.001
TR4	0.108	-0.013	0.229	0.951	0.062	-0.167	0.043	<0.001
TR5	0.009	-0.027	0.533	0.785	0.236	-0.207	0.043	<0.001
COG1	-0.094	-0.064	-0.083	0.208	0.968	0.006	0.043	<0.001
COG2	-0.039	-0.044	0.177	-0.182	0.965	-0.005	0.043	<0.001
COG3	0.061	0.077	-0.050	-0.020	0.993	-0.028	0.043	<0.001
COG4	0.091	0.014	0.072	-0.096	0.988	-0.023	0.043	<0.001
COG5	0.009	-0.025	-0.073	0.006	0.995	0.065	0.043	<0.001
COG6	-0.041	0.040	-0.093	0.032	0.992	-0.047	0.043	<0.001
COG7	-0.020	-0.015	0.000	0.192	0.980	0.038	0.043	<0.001
WCA1	-0.117	0.347	0.166	0.052	0.236	0.883	0.043	<0.001
WCA2	-0.128	0.152	0.131	0.004	0.008	0.971	0.043	<0.001
WCA3	0.097	-0.058	0.046	-0.007	0.014	0.992	0.043	<0.001
WCA4	0.069	-0.114	-0.070	-0.014	0.012	0.988	0.043	<0.001
WCA5	0.032	-0.074	0.039	0.016	-0.120	0.989	0.043	<0.001
WCA6	-0.144	-0.144	-0.334	0.047	-0.160	0.905	0.043	<0.001
WCA7	0.081	0.013	0.010	-0.073	0.051	0.993	0.043	<0.001

b) Discriminant Validity of Measures

Discriminant validity tests whether the latent variables differ from each other (Fornell & Larcker, 1981). It is assessed by comparing the Average Variance Extracted (AVE) value associated with each construct to the correlations among constructs. According to Fornell and Larcker (1981), discriminant validity is proven if a latent variable's AVE is larger than the common variances (squared correlations) of this latent variable with any other of the model's constructs.

Table 6.15: Discriminant Validity Measures

Variable	INT	BRD	BOND	COG	ST	WCA
INT	(0.643)	0.391	0.373	0.287	0.216	0.284
BRD	0.391	(0.735)	0.593	0.512	0.476	0.514
BOND	0.373	0.593	(0.761)	0.597	0.554	0.640
COG	0.287	0.512	0.597	(0.779)	0.411	0.462
ST	0.216	0.476	0.554	0.411	(0.760)	0.432
WCA	0.284	0.514	0.640	0.462	0.432	(0.756)

6.9 Analysis of Structural Model: Offline

In order to know how the conceptual model work among members of Clubs/Association, the model was tested and the result of structural model analysis are discussed in the following section.

6.9.1 Model Fit and Quality Indices

The fit indices such as APC, ARS, AARS, AVIF, GoF, SPR, RSCR, SSR and NLBCDR of offline model is given in the following table. The table results show that APC, ARS and AARS values are significant ($p < 0.001$). And the GoF value of the model is 0.383 which indicates the large fit of the model.

Table 6.16: Model Fit and Quality Indices

Fit Index	Value	Threshold Limit
Average Path Coefficient (APC)	0.283	P<0.001
Average R-squared (ARS)	0.268	P<0.001
Average Adjusted R-squared (AARS)	0.264	P<0.001
Average Block VIF (AVIF)	1.461	ideally <= 3.3
Average Full Collinearity VIF (AFVIF)	1.771	ideally <= 3.3
Tenenhau GoF (GoF)	0.383	large >= 0.36
Sympson's Paradox Ratio (SPR)	1.000	ideally = 1
R-squared Contribution Ratio (RSCR)	1.000	ideally = 1
Statistical Suppression Ratio (SSR)	1.000	acceptable if >= 0.7
Nonlinear Bivariate Causality Direction Ratio (NLBCDR)	1.000	acceptable if >= 0.7

6.9.2 Path Co-Efficient and p Values for Structural Model

Path coefficients of structural model represent standardized beta coefficients. The structural paths, path co-efficient and respective p values are given in the following table. The effect size of all the paths are given in the last column.

Table 6.17: Path Co-Efficient and Significance of Relationship - Offline

Structural Path	Path Co-efficient	p Values	Std. Error	Effect Size
INT → TR	.235	<0.001	0.043	0.055
INT → COG	.319	<0.001	0.043	0.102
INT → BRD	.318	<0.001	0.043	0.135
INT → BOND	.297	<0.001	0.043	0.124
TR → BRD	.412	<0.001	0.043	0.203
TR → BOND	.484	<0.001	0.043	0.270
TR → WCA	.084	<0.026	0.043	0.038
BRD → WCA	.195	<0.001	0.043	0.104
BOND → WCA	.456	0.001	0.043	0.292
COG → WCA	.033	0.222	0.043	0.016

The results of path co-efficient of the structural path reveals that all the hypothesized paths are significant except the relationship between cognitive social capital and willingness to collective action.

6.9.3 R Squared Co-Efficient Results

R square co-efficient which reflects the level or share of the latent construct's explained variance and therefore measures the regression function's "goodness of fit" against the empirically obtained manifest items. According to Chin (1998), R^2 of 0.67 is termed as substantial, 0.33 as moderate and 0.19 as weak.

Table 6.18: R Square Results

Variables	ST	BOND	BRD	COG	WCA
R square	0.055	0.394	0.338	0.102	0.450

R square results show that goodness of fit of variables such as bonding social capital, bridging social capital and willingness to collective action indicate moderate fit since the R square value is greater than 0.33. But, in the case of social trust and cognitive social capital, the R square indicate a week fit.

6.9.4 Q Squared Coefficients Results

Q squared coefficient is used for the assessment of the predictive validity (relevance) associated with each latent variable block in the model, through the endogenous latent variable that is the criterion variable in the block is given in the following table. The table results show that all the variables have acceptable predictive validity as Q-squared coefficient of all the variables are greater than zero.

Table 6.19: Q Squared Coefficients Results

Variables	ST	BOND	BRD	COG	WCA
Q square	0.057	0.394	0.336	0.100	0.452

6.9.5 Integrated Model: Offline

In order to depict the role of offline social networks in social capital development, the model tested among the social networking site members has been tested among members of Clubs/Association. The figure below shows the structural equation modelling of the relationship between intensity of participation in Clubs/Association and social capital (bridging social capital, bonding social capital, and cognitive social capital), social trust and its relationship with one's willingness to collective action.

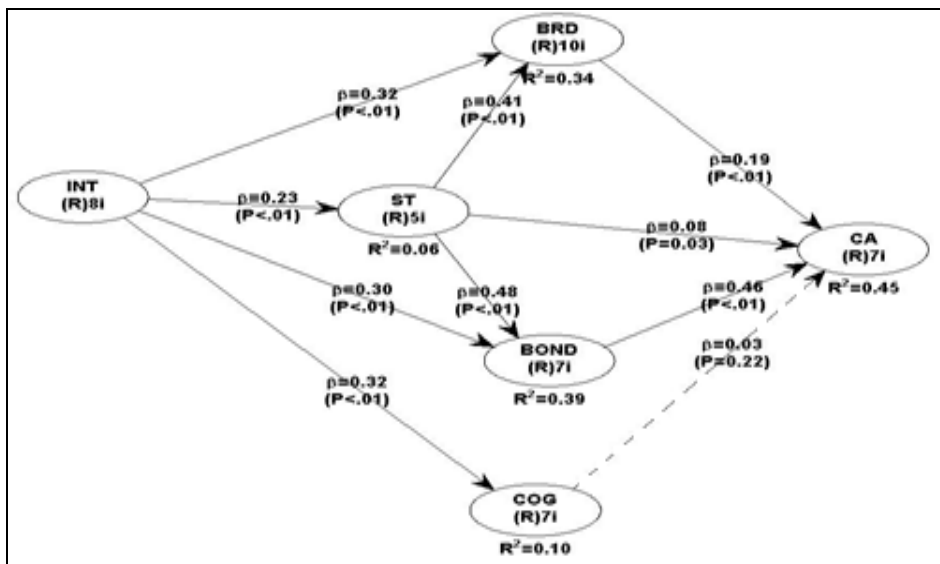


Fig. 6.10: Integrated Model Offline

The model tested indicates that willingness to collective action is the dependent variable and intensity of participation in Clubs/Association as independent variable, and social trust, bridging social capital, bonding social capital and cognitive social capital as mediating variable. The analysis results of tested model reveal that the model explains 45% variation in willingness to collective action because of the effect of independent variable and mediating variables under the study as the R^2 value of the dependent variable is 0.43. The relationship between participation in Clubs/Association to bridging social capital ($p < .01$, $B = .32$), participation in Clubs/Association to social trust ($p < .01$, $B = .23$), participation in Clubs/Association to bonding social capital ($p < .01$, $B = .30$) and participation in Clubs/Association to cognitive social capital ($p < .01$, $B = .32$) are significant as proposed.

Additionally, the relationship between social capital and willingness to collective action were given in the model itself. From the model, it is clear that bridging social capital ($p < .01$, $B = .19$), social trust ($p < .01$, $B = .08$), and bonding social capital ($p < .01$, $B = .46$) significantly contributing to willingness to collective action. But the relationship between cognitive social capital and willingness to collective action ($p > .01$) was found to be not significant.

The results show that intensity of participation is positively and significantly related with bridging social capital, bonding social capital, cognitive social capital and social trust. The strength of the relationship between intensity of participation and bonding social capital is higher than the strength of the relationship between intensity of participation and bridging social capital. Social capital significantly influence willingness to

collective action except for the relationship between cognitive social capital and willingness to collective action indicating bonding social capital as the strongest predictor of willingness to collective action followed by bridging social capital and social trust.

A comparison of conceptual model in online and offline context reveals that in both cases, intensity of participation and intensity of usage positively promoting bridging social capital, bonding social capital, cognitive social capital and social trust. The relationship between social trust and willingness to collective action is also similar in both the cases. But we can see a difference between these two networks, while analysing the relationship between social capital and willingness to collective action. In online setting, only bridging social capital is contributing to willingness to collective action. But in offline setting, both bridging and bonding social capital are contributing to willingness to collective action. In both cases, cognitive social capital not influencing one's willingness to collective action. Additionally, the biggest predictor of willingness to collective action among online members is bridging social capital and for offline, it is bonding social capital. Thus, it can be concluded that in online social networks, bridging social capital is enough for initiating collective action rather than the bonding and cognitive aspects of social capital. But in offline social networks, members should possess both bridging and bonding social capital to initiate collective action. Hence, it is recommended that online social networking and relationships (social capital) should be encouraged so that mobilization of resources for collective action become effective at least cost and time as intensive use of SNS is promoting more bridging social capital than bonding social capital.

6.10 Chapter Summary

This chapter dealt with the integrated model analysis of the social capital framework linking intensity of SNS usage, social capital and willingness to collective action. The distinct roles of online social networks (social networking sites) and offline social network (Club/Association) in social capital development and thereby one's willingness to collective action were analysed in detail. SEM analysis and the results discussed in this chapter adequately offers the explanatory relationship between variables under the study. The structural model established linking intensity of SNS usage, social capital and willingness to collective action also offers the desired objectives of the study.

.....❧.....

Chapter 7

DISCUSSION OF FINDINGS AND CONCLUSION

<i>Contents</i>	7.1 <i>Introduction</i>
	7.2 <i>Summary of Findings</i>
	7.3 <i>Findings and Discussion</i>
	7.4 <i>Implications of the Study</i>
	7.5 <i>Limitations of the Study</i>
	7.6 <i>Scope for Further Research</i>
	7.7 <i>Conclusion</i>

This chapter gives the summary of the research findings. It discusses and critically examines the findings of the present study in the light of the research objectives and then presents the implications of this study results for theory and practice. And finally, scope for future research work is discussed and the conclusion is presented.

7.1 Introduction

The primary objective of this study was to analyze the relationship between intensity of social networking site usage and social capital among networking members, and how the social capital (bridging, bonding and cognitive) influences one's willingness to collective action. This study also tried to compare the role of online and offline social networks in generating social capital namely bridging, bonding and cognitive and its relationship with one's willingness to collective action. In addition, the mediating role of social trust on the relationship between intensity of SNS usage and bridging/bonding social capital were analysed. This study has also analysed how the personality variables played a moderating role in the relationship between intensity of social networking site usage and social capital (bridging, bonding, and cognitive). Based on the literature review and the theoretical frameworks, a model linking intensity of SNS usage, social capital and willingness to collective action was developed and anticipated relationships among variables are tested with the data collected from the members of social networks. A total 842 responses were collected from both online and offline members of social networks. The collected data were further analysed with statistical methods. The following section presents the findings of the study based on the data analysis.

7.2 Summary of Findings

The following are the major empirical findings from this study:

- Intensity of SNS usage has significant relationship with bridging social capital.

- Intensity of SNS usage has significant relationship with bonding social capital.
- Intensity of SNS usage has significant relationship with cognitive social capital.
- Bridging social capital significantly influences willingness to collective action.
- Cognitive social capital does not influence willingness to collective action.
- There exist significant difference in willingness to collective action with the gender and education qualification of the respondents.
- There exist no significant difference in willingness to collective action with the age of the respondents.
- Social trust partially mediates the relationship between intensity of SNS usage and bridging social capital.
- Social trust partially mediates the relationship between intensity of SNS usage and bonding social capital.
- Personality traits, such as agreeableness, extraversion, and conscientiousness significantly moderate the relationship between intensity of SNS usage and cognitive social capital.
- The strongest predictor of willingness to collective action among social networking site members is bridging social capital and for Clubs/Association members the main predictor of willingness to collective action is bonding social capital.

7.3 Findings and Discussion

The findings of the study are presented under seven heads: (a) Socio-demographic profile of the respondents and social networking site usage characteristics, (b) Effect of socio-demographic variables on willingness to collective action, (c) Relationship between intensity of SNS usage and social capital, (d) Relationship between social capital and willingness to collective action, (e) Comparison of online and offline social networks, (f) Mediating role of social trust, and (g) Moderating role of personality traits.

7.3.1 Socio-demographic Profiles and Social Networking Site Usage Characteristics of Members

The analysis of demographic variables/background variables shows that age-wise distribution of the respondents are more or less similar to National Statistics of age wise distribution of *Facebook* members. Majority of the respondents of online social network comes under female group (54.50%) whereas among offline social network members majority of them are male. Most of the respondents from both online and offline categories are unmarried. Educational qualification of respondents reveals that majority of the online social network members possess graduation and post-graduation but, majority of the offline social network members are graduates. Most of the respondents are from urban area and are under student category having no income.

Analysis of the general social networking site usage patterns and trends shows that majority of the respondents have membership in more than two online social networks; have been a member in online social

network for a period more than 2 years. It is also revealed that most of them have more than 400 friends on their online social network, spending around 30 minutes to 1 hour on *Facebook*. Majority of the SNS members log in into *Facebook* daily and they used to log in more than 3 times a day. Mobile phone is the most preferred device for accessing their profile.

Statistics on social networking site usage among Indians show that the number of users are increasing day by day. The research findings on the general social networking site usage characteristics among the members of social networking sites also reveal that the number of users of social networking sites are increasing year by year. This study result also establishes the same trend as the number of members who have membership in online social network for more than 7 years is only 7% but those who have joined recently in social networking sites i.e., those who have membership 1-2 years constitute 25%. The number of friends on online social network and the time spent on online activities also reveals that majority of the respondent are typical social networking site member as majority of the respondents have more than 400 online friends and they used to spend around 30 minutes to 1 hour on SNS. The research finding indicating the major SNS members log into their profile daily suggests that social networking become part of the daily activity of the members.

With the technological advancements and introduction of smart phones, the trend of accessing profile with desktop/laptop have changed to accessing social networking profile through mobile. This study result also indicates that most preferred device for accessing social networking site is mobile phone. This finding is in line with statistics of Mobile Internet India

2015 report which states that around 40% of Indian are using mobile phone for accessing social networks. Another finding is that most popular social networking site among the respondents is *Facebook*, the second place goes to Google Plus indicating *Facebook* emerged the leading social media website followed by Google Plus.

7.3.2 Effect of Socio-demographic Variables on Willingness to Collective Action

Analysis of the effect of background variables on willingness to collective action does not show significant variation across age groups and location of the respondents. But, willingness to collective action of social networking member shows significant variation based on gender, indicating the willingness to collective action is higher among male members than females. And the effect of educational qualification of respondents on willingness to collective action shows that willingness to collective action among graduates and post graduates are higher. These two results suggest that educated and male members of social networking sites are more willing to participate in collective action.

A further analysis was done to check whether there is any difference in willingness to collective action based on social networking site characteristics such as number of years of membership in SNS, frequency of log in and device used for accessing SNS. The results show that willingness to collective action varies according to the number of years of membership in SNS indicating that the willingness to collective action is higher for those who have been a member in SNS for more than 4 years which suggests that in the initial years of membership in SNS, the collective action level could be low but with increase in years of experience on SNS, one's willingness to

collective action also increases. Analysis of willingness to collective action and frequency of log in into SNS reveals that the willingness to collective action is higher for those who are log in into SNS daily followed by alternative days and twice a week. The results indicate that willingness to collective action of those members who have used social networking sites as part of their everyday activity will be higher. And willingness to collective action and devices used for accessing SNS reveals that the willingness to collective action is higher for those who are using mobile phones since the users can access their profile anywhere at any time through mobile.

7.3.3 Relationship between Intensity of SNS Usage and Social Capital

Even though the literature on social networking site usage shows a strong relationship between SNS usage and social capital, the literature suggest the scope for further research on intensity of SNS usage and social capital as technological advancements are happening in our day to day life and the impact of technological advancement can be evident in relationship maintenance among individuals. Thus, it was found necessary to analyze the influence of intensity of SNS usage on the social capital (bridging, bonding, and cognitive).

Social capital is a useful framework for explicating the value of our social networks, and consequently the value of socio-technical tools, such as *Facebook*, that enable us to better maintain these connections. This study examined a common framework for understanding different types of social capital, bridging, bonding and cognitive social capital. At the first stage, a factor analysis was done with the social capital dimensions in order to ensure the factor structure of the social capital construct. The factor structure obtained was found to be matching with the structure reported under the

previous studies. Thus, the same scales are used for further analysis. After that, the reliability and validity of the scales were ensured.

The first objective of the study was to examine the relationship between intensity of social networking site usage and its influence on social capital. The study findings show that there was a strong relationship between intensity of SNS usage and social capital. All the types of social capital (bridging social capital, bonding social capital and cognitive social capital) significantly predicted by intensity of SNS usage in such a way that the strength of relationship between intensity of SNS usage and bridging social capital is high followed by bonding social capital, cognitive social capital. The regression analysis establishes the relationship between intensity of SNS usage and social capital indicating that relationship/social capital is being developing through online social networks.

Intensive use of *Facebook* was associated with higher levels of social capital, especially bridging social capital. The results are supported with previous study results such as Ellison et al. (2007) found out that *Facebook* intensity has positive relation with bridging social capital, bonding social capital and linking social capital. Steinfield (2008) and Lee (2014) indicate that *Facebook* intensity positively affects bridging social capital. Burke et al. (2011) showed that time spent on *Facebook* was positively related with bridging social capital and Ellison et al. (2011) indicated number of actual friends positively predicts bridging social capital. Brandtzeag (2012) also found that positive relationship between SNS usage and bridging social capital. But authors like Papacharisisi & Mendelso (2011) showed conflicting results with this as his finding doesn't show relation between *Facebook* use

and bridging, bonding and maintained social capital. Ellison et al. (2011) reported positive relationship between SNS usage and bridging social capital but not related with bonding social capital.

Intensity of social networking site usage is positively related with bonding social capital. Burke (2010) indicated that positive use of social networking sites contributes towards greater feelings of bonding or bonding social capital. Steinfield (2008) and Hampton (2011) also indicate the same finding suggesting that intensity of SNS usage is a strong predictor of bonding social capital.

Intensity of social networking site usage significantly influence cognitive social capital. Early studies show that cognitive social capital positively related with users satisfaction towards SNS and continuance intention but this study results indicate that intensity of SNS usage significantly predict cognitive social capital. Thus, it can be concluded that intensity of social networking site usage significantly influence social capital. All the social capital such as bridging social capital, bonding social capital, relational social capital and cognitive social capital are significantly explained by intensity of social networking site usage.

The positive relationship between intensity of SNS usage and social capital reveals that intensive users of social networks like to stay connected with their close friends and relatives (bonding social capital), feel connected to outward community through weak ties i.e., online social networks are the easy way to keep in touch with those people who are no longer in the city/country (bridging social capital), and keep sharing their views i.e. shared view/language on their online social network (cognitive social capital).

There is a notion that youngsters are wasting their valuable time in SNS by interacting with their friends online. But, this study's finding suggests that intensive use of SNS is not at all waste of time, but it is promoting social capital and these social capital in turn can be utilized for some beneficial outcomes. It should be noted that we must use our discretion and privacy policies to keep safe in public forums like social networking sites.

7.3.4 Relationship between Social Capital and Willingness to Collective Action

The study results show that social capital significantly predicts willingness to collective action. Bridging social capital is significantly influencing one's willingness to collective action and the bonding and cognitive social capital does not. Previous studies by Krishna & Uphoff (1998) and Woolcock (1998) established that social capital is an important factor in building collective action but this study finding suggest that all the types social capital are not contributing to one's willingness to collective action indicating bridging social capital as the strongest predictor of willingness to collective action among social networking site members.

The social capital theory suggests that the behaviour of individual members in a social network are strongly influenced by the presence of social capital. This study also supports this argument because the behaviour of individual i.e. collective action is strongly influenced by social capital of the members. The social resource theory (Lin, 1982) also proposed that access to and use of social resources (resources embedded in social network) can lead to better socio-economic statuses. Present study suggests that better connections between networking members, i.e. social capital can influence one's willingness to collective action in order to fight against a social issue which in

turn will upgrade the socio-economic status of individuals. Thus, in order to increase the willingness to collective action, the social capital of the individuals should be increased. And it is recommended that online social capital can also be used as an important tool for mobilizing individuals for collective action.

Bridging social capital is the strongest predictor of one's willingness to collective action. Even if bridging social capital does not provide emotional support to the members, it provides the members of social networks to gain benefits by contacting and connecting with larger community and it also helps to gather information from the network. With these characteristics of bridging social capital one can easily contact larger number of network members in mobilizing collective action efforts. Advances in information and communication technology reduce the costs to participate in online social networking and increase SNS users' ability to meaningfully engage in social interaction and thereby creating bridging social capital and finally it will end up with collective action. Online social networks allow the participants to share resources, especially the intellectual resources such as expertise, in a highly efficient manner, thus reducing the cost of participating in collective action since online discussion and chats helps the members to decide upon whether to go for collective action or not.

Bonding social capital will create strong ties, which will likely facilitate coordinated action and sharing of financial and other resources. Doerfel, Lai, & Chewing (2010) found that in times of crisis, business owners turned first to their personal networks, composed of family and friends, activating the bonding social capital that led to quick and easy access of needed resources. But this study's results show that bonding social

capital is not significantly influencing one's collective action. Even though bonding social capital is developed among online networking members, it is not contributing to one's willingness to collective action. The reason could be, in online social networks, only bridging social capital is necessary for collective action efforts than bonding social capital. Thus, in online context, bonding social capital is not contributing to one's willingness to collective action.

The literature on cognitive social capital and collective action show that cognitive social capital which is the shared values and attitudes between networking members, mobilizes people towards mutually beneficial collective action (Krishna & Uphoff, 2002). But this study finding indicates that cognitive social capital is not influencing the willingness to collective action of networking members. It might be because of the reason that cognitive social capital is developed in social networks as sharing feature of online social networking is easy and online shared views and identity end up within the social networks itself. This indicates that online shared views do not necessarily have influence on willingness collective action in a real time situation.

The relationship between social trust and willingness to collective action shows that social trust significantly influences one's willingness to collective action. This finding is in line with previous research work by Harris & Renzo (1997) and Pretty & Ward (2001). They indicated that social links of trust allow to strengthen collective action. This finding suggests that social trust among networking members generate higher levels of social inclusion (Oxoby, 2009) and thereby promoting ones' willingness to collective action.

7.3.5 Comparison of Online and Offline Social Networks

Before the advent of social media and social networking sites, membership and participation in Clubs/Association was the only sources for generation of social capital among individuals. But, with the introduction of social networking sites, the members of social networks found it as another important source for social capital building. From the literature also, it seems that social networking site usage is influencing social capital. Thus, it is interesting to know how social capital building in offline social networks happening in the current scenario where communication and social interactions have shifted from offline to online. In this context, this study compared the roles of online and offline social networks in building social capital.

The analysis of the study gave particular attention to bonding, bridging and cognitive social capital and considered the roles of face to face (offline) and online networking and the different ways in which members of social networks develop these forms of social capital.

The analysis results showed that, in social networking sites (online), the bridging social capital and social trust positively influence one's willingness to collective action, whereas the cognitive and bonding social capital does not. But, in Clubs/Association the bridging, bonding and social trust positively influence one's willingness to collective action, whereas cognitive dimension does not. Thus, it can be concluded that whatever the nature of social network (whether it's online or offline), the cognitive dimension doesn't influence one's willingness to collective action. Additionally, the statistical results of the path analysis showed that the strongest predictor of willingness to collective action among social networking site

members is bridging social capital and for Clubs/Association members the main predictor of willingness to collective action is bonding social capital.

The development of SNSs dedicated to fostering civic and political engagement among users, particularly young people, speaks in a loud voice to the potentialities of social media as a tool for collective action. *Facebook* can fulfill the informational needs of users, a key ingredient for strengthening weak ties and promoting collective action (Kenski & Stroud, 2006; Shah et al., 2001). The findings presented here support the notion that SNSs serve a supplemental role by providing another channel through which individuals can maintain their relationships. While it is expected that strong ties such as one's closest friends and family will employ multiple channels through which to interact and will be more likely to meet face to face than sites such as *Facebook* which provide another way for strong ties to interact in times when face to face interaction is not possible.

Another reason for this may be the individual's tendency to use two channels for maintaining different types of relationships. Relationships between individuals who are not very socially similar (different perhaps in age, gender, or social status) are easier to maintain through online channels, while stronger bonds are maintained through face-to-face interaction and shared activities (Mesch & Talmud, 2006). Vergeer & Pelzer (2009) found, for example, that the size of a respondent's online social network does not have an influence on the amount of social support they perceive, but rather only the size of the offline network. In this sense, their results confirm the fact that online bonds are weaker than offline relationships. Thus, the combination of online bridging social capital and offline bonding social capital will contribute more to the mobilization of collective efforts.

7.3.6 Mediating Role of Social Trust

The study analyzed the relationship between intensity of social networking site usage and social capital. It was found that all the dimensions of social capital are related with intensity of social networking site usage. Although the direct relation between intensity of SNS usage and structural social capital (bridging and bonding social capital) is evident, the literature argues the scope of social trust mediate the relationship between intensity of SNS usage and structural social capital. The study results show that social trust partially mediates the relationship between intensity of SNS usage and bridging social capital. Social trust partially mediates the relationship between intensity of SNS usage and bonding social capital indicating that intensity of SNS usage leads to higher levels of social trust between social networking members and it will in turn influences one's bridging and bonding social capital.

Ellison et al. (2007) and Decker (2007) indicated that there are many factors which influences the social capital, among them, the effect of social trust on social capital has also addressed in literature. And studies by Huang (2003) and Yamamura (2010) suggested that social trust can raise social capital. The mediation analysis of trust in this study also confirms that intensity of SNS usage is creating bridging and bonding social capital but it is mediated through social trust.

7.3.7 Moderating Effect of Personality Traits

The literature on social networking sites and social capital suggests that users' characteristics (e.g., personality traits) could discriminate better for which groups the association between social capitals by using the social

network site are stronger and/or weaker. Hence, the moderating effect of personality traits such as extraversion, agreeableness and conscientiousness on the relationship between intensity of SNS usage and social capital was tested in order to know if the impact of intensity of SNS usage on social capital depends on personality of the members of the social networking sites. The moderating influence of extraversion was found to be significant on the relationship between intensity of SNS usage and bonding social capital and intensity of SNS usage and cognitive social capital. This indicates that extraversion contributes to social capital. In all cases, since the path co-efficient of moderating link is positive, the link between intensity of SNS usage and social capital (bonding and cognitive) goes up in value as extraversion increases.

The moderating influence of agreeableness was found to be significant on the relationship between intensity of SNS usage and cognitive social capital. But it doesn't affect the structural social capital. And the conscientiousness trait of an individual significantly moderates the relationship between intensity of SNS usage and cognitive social capital. Those who are highly conscientious can increase their cognitive social capital with the intensive use of SNS.

Thus, we can conclude that personality traits don't affect bridging social capital. But extraverts can increase their bonding social capital and cognitive social capital with the intensive use of SNS. Likewise, individual who are agreeable in nature can increase their cognitive social capital by increasing the intensity of SNS usage. And conscientious people can increase their cognitive social capital by intensive use of social networking sites.

7.4 Implications of the Study

The implications of the study are discussed under two heads, namely: theoretical contributions and practical implications. These are discussed as follows:

7.4.1 Theoretical Contributions

This study theoretically contributes to the creation of social capital framework for online social network (*Facebook*) which can be used to predict one's willingness to collective action as well as how one's intensity of social networking site usage can be used to predict the social capital.

The study results indicate that social capital is generated in online social networks and this social capital can be used for predicting one's willingness to collective action. The theoretical suggestion of this is that SNS in fact strengthens the social capital, which could, in turn, potentially lead to one's willingness to collective action.

The comparison of online and offline social networks show that the social capital is generated in both social networks and it gives a clear answer to the debate on the topic whether social networking sites are enhancing or diminishing social capital of members. The results of this study also show that online social networks are enhancing the social capital, rather than replacing, traditional offline social networks.

This finding can be connected to the theory of Granovetter (1973) in relation to weak ties and strong ties. Granovetter argues that strong ties tend to form cliques, while weak ties tend to bridge cliques and bring everyone into the same network, so that weak ties are better basis for collective

action. This finding in fact indicates that intensive participation in offline social networks promotes collective action is said to demonstrate the importance of strong ties for providing bonding social capital among friends and relatives. And intensive use of SNS promotes collective action is said to demonstrate the importance of weak ties for providing bridging social capital among social networking members. Moreover, the cognitive social capital is relatively unimportant for collective action. And collective action happens when bridging and bonding social capital of resourceful individuals can co-ordinate their efforts.

Although previous researches have generated enough evidence on the relationship between intensity of SNS usage and social capital, this study extended these studies by combining bridging, bonding and cognitive social capital in online context. This common social capital framework can be used for future research.

7.4.2 Practical Implications

This study findings provides a framework on how to use social networking sites such as *Facebook* to optimize one's relational (social capital) and instrumental (collective action) goals because accessing bridging social capital does not require multiple communication channels, an SNS like *Facebook* alone can be an effective tool.

By providing a theoretical integration of intensity of SNS usage with social capital among networking members and understanding of how social capital contributes to important outcomes like collective action might help the individuals to know how to effectively use social networking sites for their collective action activities.

Investigating the influence of social capital on one's willingness to collective action can help to understand how to use the existing stock of social capital for community development projects.

The findings here suggest that social networking sites are most useful in building the bridging social capital. This demonstrates the potential advantage of bridging social capital developed online, particularly in social media environments. Bridging new people was also perceived as beneficial in terms of increasing one's willingness to collective action.

The study has also found the effectiveness of using online social networks for accessing social capital may lie in its ability to trigger willingness to collective action. So, the designers should incorporate certain features like social networking sites in local area which facilitate social interaction and collective action among youth in order to make them freely participate in collective activities as majority of the members of SNS are reluctant to participate because of fear or lack of confidence in participating in activism. For example, a social networking site in a local area can function as a base for collective action initiatives because the members can post and share wide variety of local information and ideas. And in collaboration with local mass media, a local area SNS has an opportunity to be local information source by engaging in this type of local area social networking site, youngsters can personally involve in collective action efforts without any fear as the members of SNS are local people.

The study results indicate that different types of social capital can lead to difference in outcomes in terms of using a site like *Facebook* to ask for favors. By keeping this in mind, practitioners can understand how they

might construct tools that allow for relationship maintenance in such a way as to evoke the different aspects of social capital.

In the light of the findings on social networking site usage and social capital, a typical set of personality traits could be useful for the marketers and other interested groups analysing SNS in deciding the social capital development activities or programmes to the members of social networking sites.

Finally, the conceptual model was tested among Club/Association members also to test the offline social capital among them. The results give insights to the researchers in the field of social capital that social capital building which is happening among the members of online social networks found different from offline social networks. The members of online social networks show high levels of bridging social capital than bonding, whereas the members of offline clubs/association show high level of bonding social capital than bridging social capital. By keeping this in mind, designers can make plans to develop social capital and thereby collective action efforts according to their requirement.

The study has found that among online social networking members, only bridging social capital is necessary for initiating collective action. This finding help the practitioners engaged in collective action mobilization to concentrate more on bridging social relationships than the bonding relations while initiating collective activism.

The study has established the relationship between intensity of SNS usage and increased bridging, bonding and cognitive social capital among

networking members. This finding would help the HR managers of an organisation to improve organizational level outcomes such as employee retention, productivity, employee satisfaction, etc. by providing facilities for the employees to access SNS during lunch breaks and thereby increasing their social capital.

The mediating roles of social trust on the relationship between intensity of SNS usage and bridging and bonding social capital were established in this study. This gives insight to the members of SNS in believing networking members at first stage, before developing and maintaining bridging and bonding social capital.

7.5 Limitations of the Study

- While generalizing the results of the study, it should be kept in mind for possible cultural biases of the respondents as the study was confined to the State of Kerala, India, only.
- The present study has measured the intensity of SNS usage using *Facebook* users as it is the most popular social networking site among Indians. Intensity of other SNS usage such as Google plus and Twitter were not included in the study.
- This study found that social capital significantly influences willingness to collective action. But, it does not categorize collective action into those actions meant for social engagement and those action meant for social interaction.
- There must be follow up studies to update the findings as the technology and its applications may change from time to time.

7.6 Scope for Further Research

The theoretical model proposed in the present study has the potential to be expanded by including further variables such as different connection strategies of *Facebook* usage as independent variables that are likely to influence the social capital. Such a comprehensive model could have the prospective to explain more variance in social capital and thereby in willingness to collective action. The study has established the role of social capital in predicting one's willingness to collective action. But it does not look into the types of collective action among networking members in online and offline social networking context. Therefore, future studies can concentrate on types of collective action such as action aimed at social interaction and social engagement. This study has contributed to a more stable foundation for the role of online social networks for willingness to collective action upon which subsequent analyses can assess social media's actual ability to successfully engage and mobilize the public for collective action.

The literature on social capital in relation to other forms of capital shows the gaining importance of positive psychological capital from social capital. Thus, by incorporating increased psychological capital variables such as confidence, hope, optimism and resilience to the proposed framework would give better insights. The findings of this study show that the importance of SNS usage and social capital is increasing and it will continue further exploring the potential benefits that can be derived from SNS and communication technologies like mobile based apps such as WhatsApp, *Facebook* messenger, etc. as the technology continues to change

rapidly. Thus, future studies can be looked into how WhatsApp facility helps in social capital and thereby willingness to collective action. Findings of this study should be further tested with a larger sample of internet users having membership in different SNSs.

In relation to social networks, it is important to understand how some people experience negative outcomes from the mechanism of social capital development and many members benefit from it. Such research could focus on people who have joined social networks (both online and offline) and subsequently left because of negative experience. This would enable a greater understanding of different perspective on tie information and mechanism of social capital development.

Since the relationship between intensity of SNS usage and social capital is established, future studies can be concentrated on the role of intensity of SNS usage in promoting social capital for organizational outcomes such as employee productivity, employee satisfaction, etc. (Cohen, 2001; Fukuyama, 1995; Nahapiet & Ghoshal, 1998). Also, since the social networking site usage is a global phenomenon, studies comparing SNS members from India and also from outside India can yield interesting findings like usage pattern of members, SNS addictions etc. differ from region to region or not. Another important area for further research may be the dynamics of emotions, social relations and cognitive aspects in deciding willingness to collective action in the context of intensity of SNS usage.

7.7 Conclusion

The study has introduced a framework for the role of intensity of SNS (*Facebook*) usage in promoting social capital for willingness to collective action by linking intensity of social networking site usage to social capital (bridging social capital, bonding social capital and cognitive social capital) and social capital to one's willingness to collective action. The model proposed in the study was found to be fit and the same has been established that intensity of SNS usage as a significant antecedent of social capital and the willingness to collective action as a significant outcome of social capital. This combined framework of social capital can be used in further research linking social networking sites and social capital.

Social networking sites (SNSs) enable users to present themselves, connect to a social network, and develop and maintain relationships with others. The effect of intensity of SNS usage on bridging social capital, bonding social capital, cognitive social capital and social trust are found significant as expected. This suggests that social networking sites are contributing to social capital. So, this study is an evidence that the online social capital is present among the SNS members from India also.

Social capital is a productive asset, which is a substitute for and complementary to other productive assets, which can be used as a tool to increase one's willingness to collective action also. This study found that social capital significantly predicts willingness to collective action. By contrast, cognitive social capital was found to be an insignificant factor for the prediction of one's willingness to collective action but all other social capitals (bridging and bonding) were found to be a significant factor in

explaining willingness to collective action. Thus, the online social networking members can increase their collective action efforts by enhancing bridging social capital and for offline social network members can enhance their willingness to collective action by increasing the bonding social capital.

Both online and offline social networks are contributing to the social capital of the members. The intensive use of social networking sites does not weaken offline social capital. At the same time, social networking sites are also promoting social capital especially online bridging social capital. Thus, both online and offline social networks have their own role in social capital building.

Evidently, the mediating role of social trust in the model was established on the relationship between intensity of SNS usage and bridging social capital and intensity of SNS usage and bonding social capital. And the moderating role of personality traits such as extraversion, agreeableness and conscientious indicate that cognitive social capital of members can be influenced with intensive use of social networking sites.

This study suggests that intensive use of SNS helps the members to trust other members of the network; provide a platform for shared norms/language (cognitive social capital); connecting with strong ties i.e., with family, friends and those who are emotionally attached (bonding social capital); connecting to outer community with weak ties (bridging social capital). This indicates the need for social integration and interaction among individuals. And by connecting the members to the outer community, increasing the trust between networking members and maintaining the relation with friends and family, social networking sites create the avenue for the members in social engagement by increasing their willingness to

collective action. Thus, it can be summarized that both online and offline social networks are generating social capital and social networking sites serve as a supplemental role by providing another channel through which individuals can maintain their social capital and contribute to one's willingness to collective action.

To conclude, the study has introduced and tested a framework for social networking and social capital by linking intensity of social networking site (*Facebook*) usage to improved social capital (bridging social capital, bonding social capital and cognitive social capital) and then such a social capital to influence one's willingness to collective action. The mediating role of the variable 'social trust' in the model was established on the relationship between intensity of SNS usage and bridging social capital and intensity of SNS usage and bonding social capital. There is a positive relationship between intensity of SNS usage and cognitive social capital. Also, there is no relationship between cognitive social capital and willingness to collective action. However, there is a strong relationship between bonding and bridging capitals and willingness to collective action. The above findings from the testing of the model suggest that the intensity of SNS usage is promoting the willingness to collective action mediated by bonding and bridging social capitals, which are, in turn, mediated by social trust. The overall conclusion from the model may be that, the emotional and social relations play a major role over cognitive aspects in influencing willingness to collective action.

.....✪.....

References

- [1] Adam, F. A., & Roncevic. (2003). Social Capital: Recent Debates and Research Trends. *Social Science Information* 42, 155-183.
- [2] Adler, P. & Kwon, S.W. (2000). Social Capital: The Good, The Bad, and The Ugly. In E. Lesser, *Knowledge and Social Capital: Foundations and Applications*. Boston: Butterworth- Heinemann. 89-115.
- [3] Ahn, J. (2012). Teenager's Experience with Social Network Sites: Relationships to Bridging and Bonding Social Capital. *The Information Society: An International Journal*, 99-109.
- [4] Alesina, A., & Eliana, L. F. (2000). Participation in Heterogeneous Communities. *Quarterly Journal of Economics*, 115(3), 847-904.
- [5] Alloway, T. P. (2012). The Impact of Engagement with Social Networking Sites (SNSs) on Cognitive Skills. *Computers in Human Behavior* 28, 1748–1754.
- [6] Amanda, L., & Madden, M. (2007). *Teens and Social Media*. Washington: Pew Internet and American Life Project.
- [7] Amichai, H. Y. (2010). Social Network Use and Personality. *Computers in Human Behavior*, 26(6), 1289–1295.
- [8] Andrews, D., Preece, J., & Turoff, M. (2001). A Conceptual Framework for Demographic Groups Resistant to Online Community Interaction. *Paper presented at the System Sciences, 2001. Proceedings of the 34th Annual Hawaii International Conference*.
- [9] Andon, S. P. (2007). Evaluating Computer Mediated Communication on the University Campus: The Impact of Facebook.com on the Development of Romantic Relationships, *Master Thesis*, The Florida State University, Florida.
- [10] Anduiza, E., Cristancho, C., & Sabucedo, J. M. (2014). Mobilization through Online Social Networks: The Political Protest of the Indignados in Spain. *Information, Communication & Society*, 17, 750 –764.

- [11] Aubert, V., & Hofer, M. (2013). Perceived Bridging and Bonding Social Capital on Twitter: Differentiating between Followers and Followees. *Computers in Human Behaviour*, 2134-2142.
- [12] Baer, M. (2010). The Strength of Weak Ties Perspective on Creativity: A Comprehensive Examination and Extension. *Journal of Applied Psychology*, 95, 592-601.
- [13] Banerjee, M. P. (2012). Social Networking Sites: A Fad or a Breakthrough in New Age of Recruitment. *Global Journal of Management and Business Research*, 12(3).71-76.
- [14] Bandura, A. (1997). *Self Efficacy: The Exercise of Control*, New York: Freeman.
- [15] Banarjee, S. (2013). What Affects Me? A Smart Public Alert System Based on Stream Reasoning. *7th International Conference on Ubiquitous Information Management and Communication*. New York.
- [16] Bargh, J. (2004). The Internet and Social Life. *Annual Review of Psychology*, 55, 573-590. Retrieved from http://www.uam.es/personal_pdi/psicologia/pei/download/bargh2004.pdf
- [17] Baron, R. M., & Kenny, D. A. (1986). The Moderator Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- [18] Barrick, M. R., & Mount, M. K. (1991). The Big Five Personality Dimensions and Job Performance: A Meta-analysis. *Personnel Psychology*, 44, 1-26.
- [19] Beaudoin, C.E., & Tao, C.C. (2007). Benefiting from Social Capital in Online Support Groups: An Empirical Study of Cancer Patients. *Cyber Psychology & Behavior*, 10, 587-590.
- [20] Beer, D., & Burrows, R. (2007). Sociology and, of and in Web 2.0: Some Initial Considerations. *Sociological Research Online*, 12(5).

-
- [21] Beer, D. (2008). Social Network(ing) Sites... Revisiting the Story So Far: A Response to Donath Boyd & Nicole Ellison. *Journal of Computer Mediated Communication*, 516-529.
- [22] Bimber, B., Flanagin, A. J., & Stohl, C. (2005). Reconceptualizing Collective Action in the Contemporary Media Environment. *Communication Theory*, 15, 389 - 413.
- [23] Blanchard, J. J., & Horan, W. P. (2016). Virtual Communities and Social Capital. *Social Science Computer Review*, 16(3), 293-307.
- [24] Blau, P. (1964). *Exchange and Power in Social Life*. New York: Wiley.
- [25] Boase, J., Horrigan, J. B., Wellman, B., & Rainie, L. (2006). The Strength of Internet Ties. Pew Internet and American Life Project. Retrieved from http://www.pewinternet.org/pdfs/PIP_Internet_ties.pdf.
- [26] Borgatti, S.P. (2002). Ucinet for Windows: Software for Social Network Analysis. *Harvard, MA: Analytic Technologies*.
- [27] Bosworth, G., & Willett, J. (2011). Embeddedness or Escapism? Rural Perceptions and Economic Development in Cornwall and Northumberland. *Sociologia Ruralis*, 51(2), 195–214.
- [28] Bourdieu, P. (1986). The Forms of Capital. In J. G. Richardson, *Handbook of Theory and Research for the Sociology of Education*. New York: Greenwood.
- [29] Bourdieu, P. (1992). *An Invitation to Reflexive Sociology*. Chicago: University of Chicago Press.
- [30] Bourdieu, P. (2001). The Forms of Capital. In M. & Granovetter, *The Sociology of Economic Life (2nd Edition)*. Boulder: Westview Press. 96-111.
- [31] Boyd, D. M., & Ellison, N. B. (2007). Social Networking Sites: Definition, History, and Scholarship. *Journal of Computer Mediated Communication*, 210-230.
- [32] Brandtzaeg, P. B. (2012). Social Networking Sites: thier Users and Social Implications - A Longitudinal Study. *Journal of Computer Mediated Communication*, 467-488.

- [33] Brass, D. J., Butterfield, K. D., & Skaggs, B. C (1998). Relationship and Unethical Behavior: A Social Network Perspective. *Academy of Management Review*, 23(1), 14-31.
- [34] Brewer, M. (1991). The Social Self: On Being the Same and Different at the Same Time. *Personality and Social Psychology Bulletin*, 17, 475-482.
- [35] Brown, G.W., & Harris, T. (1978). *Social Origins of Depression*. London: Tavistock.
- [36] Brown, R. (2000). Social Identity Theory: Past Achievements, Current Problems and Future Challenges. *European Journal of Social Psychology*, 30, 745-778.
- [37] Bulik, B. S. (2008). Is Your Consumer Using Social Media? *Advertising Age*, 79(18), 12-13.
- [38] Burke, M., Marlow, C., & Lento, T. (2010). Social Network Activity and Social Well-being. *CHI' 10 Proceedings of the 28th International Conference on Human Factors in Computing Systems*, New York, 1909-1912.
- [39] Burt, R. (1982). *Toward a Structural Theory of Action*. New York: Academic Press.
- [40] Burt, R. (1992). *Structural Holes: The Social Structure of Competition*. Harvard University Press, Cambridge.
- [41] Burt, R. (1997). The Contingent Value of Social Capital. *Administrative Science Quarterly*, 42, 339-365.
- [42] Burt, R. (2001). Structural Holes Versus Network Closure as Social Capital. In N. C. Lin, *Social Capital: Theory and Research*. New York.
- [43] Burt, R. S. & Knez, M. (1995). Kinds of Third-party Effects on Trust. *Rationality and Society*, 7, 255-292.
- [44] Butt, S., & Phillips, J. G. (2008). Personality and Self- Reported Mobile Phone Use. *Computers in Human Behavior*, 24(2), 346-360.

-
- [45] Carmines, E. G., & Richard, A. Z. (1979). *Reliability and Validity Assessment*. Newbury Park, CA: Sage Publications.
- [46] Carpenter, J. D. (2004). Cooperation, Trust, and Social Capital in Southeast Asian Urban Slums. *Journal of Economic Behaviour and Organization*, 55, 533-551.
- [47] Caspi, A., & Roberts, B.W. (2001). Personality Development across the Life: The Argument for Change and Continuity. *Psychological Inquiry*, 12, 49-66.
- [48] Cassidy, J. (2006). Me media. *The New Yorker*, 50–59.
- [49] Cattell, R. B. (1943). The Description of Personality: Basic Traits Resolved into Clusters. *Journal of Abnormal and Social Psychology*, 38, 476-506.
- [50] Cattell, R. B. (1945). The Description of Personality: Principles and Findings in a Factor Analysis. *American Journal of Psychology*, 58, 69-90.
- [51] Chang, Y. P., & Zhu, D. H. (2012). The Role of Perceived Social Capital and Flow Experience in Building Users' Continuance Intention to Social Networking Sites in China. *Computers in Human Behavior*, 28(3), 995-1001.
- [52] Chen, W. (2013). The Implications of Social Capital for the Digital Divides in America. *The Information Society: An International Journal*, 29(1), 13–25.
- [53] Chin, W. W., & Newsted, P. R. (1999). Structural Equation Modeling Analysis with Small Samples Using Partial Least Squares. In R. Hoyle, *Statistical Strategies for Small Sample Research*, Thousand Oaks, CA: Sage Publications. 307-341.
- [54] Chiu, C. M. (2006). Understanding Knowledge Edge Sharing in Virtual Communities: An Integration of Social Capital and Social Cognitive Theories. *Decision Support Systems*, 42(3), 1872-1888.
- [55] Chou, H. T., & Edge, N. (2012). They are Happier and Having Better Lives than I am: The Impact of Using Facebook on Perceptions of Others' Lives. *Cyberpsychology, Behavior and Social Networking*, 15, 117–121.

- [56] Churchill, G. A. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, XVI (February), 64-73.
- [57] Cliff Lampe, R. G. (2014). Help is on the Way: Patterns of Responses to Resource Requests on Facebook. *CBCW 2014*, February, 15-19.
- [58] Cohen, D. A. (2001). *In Good Company: How Social Capital Makes Organizations Work*. Boston, MA: Harvard Business School Press.
- [59] Cohen, S. S. (1985). *Social Support and Health*. Orlando: Academic Press.
- [60] Coleman, J. (1990). *Foundations of Social Theory*. Cambridge London: Bellknap Press of Harvard University Press.
- [61] Coleman, J. (1988). Social Capital and the Creation of Human Capital. *The American Journal of Sociology*, S95-S120.
- [62] Collom, E. (2008). Engagement of the Elderly in Time Banking: The Potential for Social Capital Generation in an Aging Society. *Journal of Aging and Social Policy*, 20(4), 414-436.
- [63] Constant, D., Sproull, L., & Kiesler, S. (1996). The Kindness of Strangers: The Usefulness of Electronic Weak Ties for Technical Advice. *Organisation Science*, 7(2), 119-135.
- [64] Coppola, N. W. (2004). Building Trust in Virtual Teams. *IEEE Transactions on Professional Communication*, 47(2), 95-104.
- [65] Costa, D., & Kahn, M. (2003). Understanding the American Decline in Social Capital, 1952 – 1998. *Kyklos*, 56(1), 17-46.
- [66] Craig Ross, E. S. (2009). Personality and Motivations Associated with Facebook Use. *Computers in Human Behaviour*, 578-586.
- [67] Cross, J. L. M, & Lin, N (2008). Access to Social Capital and Status Attainment in the United States: Racial/Ethnic and Gender Differences. In N. L. Erickson, *Social Capital: An International Research Program*, Oxford, UK: Oxford University Press, 364-379.

-
- [68] Cummings, J. L. (2006). Communication Technology and Friendship during the Transition from High School to College. In M. & R. E. Kraut, *Computers, Phones, and the Internet: Domesticating Information Technology*, New York: Oxford University Press, 265-278.
- [69] Daniel, B. S. (2003). Social Capital in Virtual Learning Communities and Distributed Communities of Practice. *Canadian Journal of Learning and Technology*, 29(3), 113-139.
- [70] Dasgupta, P. (2000). Economic Progress and the Idea of Social Capital. In P. D. Serageldin, *Social Capital: A Multifaceted Perspective* Washington, DC: 2000. World Bank.
- [71] David John Hughes, M. R. (2012). A Tale of Two Sites: Twitter vs. Facebook and the Personality Predictors of Social Media Usage. *Computers in Human Behaviour*, 561-569.
- [72] De Souza, B. X. (1998). Doing Democracy Up Close: Culture, Power, and Communication in Community Building. *Journal of Planning Education and Research*, 1-13.
- [73] Decker, N. (2007). The Effectiveness of Online Social Networks, *Master Thesis*, University of Maastrich, The Netherlands.
- [74] Deng, Z., Lu, Y., Wei, K.K, & Zhang, J. (2010). Understanding Customer Satisfaction and Loyalty: An Empirical Study of Mobile Instant Message in China, *International Journal of Mobile Management*, 30(4), 289-300.
- [75] Denny, K. (2003). The Effects of Human Capital on Social Capital: A Cross Country Analysis. The Institute for Fiscal Studies, *Working Paper* No. 16.
- [76] Dearstyne, B. W. (2007). Blogs, Mashups and Wikis: Oh, My!. *Information Management Journal*, 41(4), 25-33.
- [77] DeRaad, B., & Schouwenburg, H. C. (1996). Personality in Learning and Education: A Review. *European Journal of Personality*, 10(5), 303-336.

- [78] Devaraja, S. R., Easley, F., Crant, J. M. (2008). How Does Personality Matter? Relating the Five Factor Model to Technology Acceptance and Use. *Information Systems Research*, 19(1), 93-105.
- [79] Dholakia, U. B. (2004). A Social Influence Model of Consumer Participation in Network and Small Group Based Virtual Communities. *International Journal of Research in Marketing*, 21, 241-263.
- [80] Diani, M. (2000). Social Movement Networks: Virtual and Real. *Information, Communication & Society*, 3(3), 386-401.
- [81] Digman, J. M. (1989). Five Robust Trait Dimensions: Development, Stability, and Utility. Special Issue: Long-term Stability and Change in Personality. *Journal of Personality*, 5, 195-214.
- [82] Digman, J. M. (1990). Personality Structure: Emergence of the Five-Factor Model. *Annual Review of Psychology*, 41(1), 417-440.
- [83] DiMicco, J. M. (2008). Motivations for Social Networking at Work. *Paper presented at the ACM Conference on Computer Supported Cooperative Work*. San Diego, CA.
- [84] Dinev, T., & Hart, P. (2006). An Extended Privacy Calculus Model for E-commerce Transactions. *Information Systems Research*, 17(1), 61-80.
- [85] Doerfel, M. L. (2010). The Evolutionary Role of Inter-organizational Communication: Modelling Social Capital in Disaster Contexts. *Human Communication Research*, 125-162.
- [86] Donath, J., & Boyd, D. (2004). Public Displays of Connection. *BT Technology Journal*, 22(4), 71-82.
- [87] Dougherty, T. W., Cheung, Yu Ha, & Florea, L. (2008). The Role of Personality in Employee Developmental Networks. *Journal of Managerial Psychology*, 23, 653-669.
- [88] Downes, S. (2005). Semantic Networks and Social Networks. *National Research Council Canada, The Learning Organization*, 12(5), 411-417.

- [89] Dwyer, C. S. (2007). Trust and Privacy Concern within Social Networking Sites: A Comparison of Facebook and MySpace. *Proceedings of the Thirteenth Americas Conference on Information Systems*. Keystone, Colorado.
- [90] Duggan, M., Ellison, N. B., Lampe, C., Lenhart A., & Madden M. (2015). Social Media Update 2014. Washington, DC: *Pew Internet & American Life Project*. Retrieved from <http://www.pewinternet.org/2015/01/09/social-media-update-2014/>
- [91] Earl, J., Kimport, K. (2011). *Digitally Enabled Social Change*. Cambridge: MIT Press.
- [92] Earl, J., McKee, H. H., Mejia, A., Tolan, M., & Arlotti, A. (2013). This Protest will be Tweeted. *Information, Communication & Society*, 16(4), 459–478.
- [93] Glaeser, E L., David, L., & Sacerdote, B. (2002). An Economic Approach to Social Capital. *The Economic Journal*, 112(November), 437-458. Retrieved from <http://www.jstor.org/stable/798456>.
- [94] Ellison, N., Heino, R., & Gibbs, J. (2006). Managing Impressions Online: Self-presentation Processes in the Online Dating Environment. *Journal of Computer Mediated Communication*, 11(2), article 2. Retrieved from <http://jcmc.indiana.edu/vol11/issue2/ellison.html>.
- [95] Ellison, N., & Steinfield, C. (2006). Spatially Bounded Online Social Networks and Social Capital: The Role of Facebook. *Annual Conference of the International Communication Association*. Dresden, Germany.
- [96] Ellison, N., Steinfield, C., & Lampe, C., (2007). The Benefits of Facebook "Friends": Exploring the Relationship between College Students' Use of Online Social Networks and Social Capital. *Journal of Computer Mediated Communication*, 12(3), article 1. Retrieved from <http://jcmc.indiana.edu/vol12/issue4/ellison.html>.
- [97] Ellison, N. (2007). Connection Strategies: Social Capital Implications of Facebook Enabled Communication Practices. *New Media and Society*, 13(6), 873-892.

- [98] Ellison, N., & Lampe, C. (2009). Social Network Sites and Society: Current Trends and Future Possibilities, *Interactions*. 6-9. Retrieved from- <https://msu.edu/~nellison/EllisonLampeSteinfeld2009.pdf>
- [99] Ephinston, R.A. & Noller, P. (2011). Time to Face It! Facebook Intrusion and the Implications for Romantic Jealousy and Relationship Satisfaction. *Cyberpsychology, Behaviour & Social Networking*, 14(11), 631-635.
- [100] Erickson, B. H. (1996). Culture, Class, and Connections. *American Journal of Sociology*, 102(1), 217-251.
- [101] Fafchamps, M. (2002). The Role of Business Networks in Market Development in Sub-Saharan Africa. In M. A. Hayami, *Communities and Markets in Economic Development*. Oxford University Press, Oxford.
- [102] Farr, J. (2004). Social Capital: A Conceptual History. *Political Theory*, 6-33.
- [103] Feldman, T. A. (1999). Social Capital: Conceptual Framework and Empirical Evidence-An Annotated Bibliography. *Social Capital Initiative Working paper*.
- [104] Field (2003). *Social Capital*. Routledge. Psychology Press.
- [105] Flanagin, A. J. (2005). IM Online: Instant Messaging Use among College Students. *Communication Research Reports*, 22(3), 175-187.
- [106] Flap, H. (1999). Creation and Returns of Social Capital. In H. F. Volker, *Creation and Returns of Social Capital: a New Research Program*, London: Rutledge. 2-23.
- [107] Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, XVIII (February), 39-50 .
- [108] Fukuyama, F. (1995). *Trust: The Social Virtues and the Creation of Prosperity*. New York: The Free Press.
- [109] Fukuyama, F. (1999). *The Great Disruption*. London: Profile Books.

- [110] Gallion, A. (2010). Applying the Uses and Gratifications Theory to Social Networking Sites: A Review of Related Literature. Retrieved from http://www.academia.edu/1077670/Applying_the_Uses_and_Gratifications_Theory_to_Social_Networking_Sites_A_Review_of_Related_Literature.
- [111] Gangadharbatla, H. (2008). Facebook Me: Collective Self-esteem, Need to Belong, and Internet Self-efficacy as Predictors of the I-generation's Attitudes toward Social Networking Sites. *Journal of Interactive Advertising*, 8, 5-15.
- [112] Gant, J., Casey, I., & Kathryn, S. (2002). Social Capital and Organisational Change in High-involvement and Traditional Work Organisations. *Journal of Economics and Management*, 289-328.
- [113] Garrett, R. K. & Edwards, P. N. (2007). Revolutionary Secrets: Technology's Role in the South African Anti-apartheid movement. *Social Science Computer Review*, 25(1), 13–26.
- [114] Gatautis, E. V. (2012). Conceptual Framework for Localisation of Social Networking Sites. 7th *International Scientific Conference "Business and Management 2012"*. Lithuania.
- [115] Gefen, D., Rao, V., & Tractinsky, N. (2003). Conceptualization of Trust, Risk and their Relationship in Electronic Commerce: The Need for Clarification, *Proceedings of the 36th Hawaii International Conference on IS*.
- [116] Gentile, B. J. (2012). The Effect of Social Networking Websites on Positive Self-Views: An Experimental Investigation. *Computers in Human Behaviour*, 1929-1933.
- [117] Glaeser, E. L. (2002). An Economic Approach to Social Capital. *The Economic Journal*, 112, 437-458.
- [118] Gladwell, M. (2010). Why the Revolution will not be Tweeted. *The New Yorker*. Retrieved from www.newyorker.com/magazine/2010/10/04/small-change-malcolm-gladwell.

- [119] Glover, T. D., Parry, D. C., & Shiness, K. J. (2005). Building Relationships, Accessing Resources: Mobilizing Social Capital in Community Garden Contexts. *Journal of Leisure Research*, 37(4), 450-474.
- [120] Goldbeck, J. R. (2011). Predicting Personality from Twitter, *IEEE International Conference on Privacy, Security, Risk, and Trust, and IEEE International Conference on Social Computing*, 149-156.
- [121] Goldberg (1993). The Structure of Phenotypic Personality Traits, *American Psychology*, 48(1), 26-34.
- [122] Golder, S. A. (2007). Rhythms of Social Interaction: Messaging within a Massive Online Network. In Steinfield, M. C., *Communities and Technologies 2007: Proceedings of the Third International Conference on Communities and Technologies*, London: Springer, 41-66.
- [123] Gonzales, A. L. (2011). Mirror, Mirror on My Facebook Wall: Effects of Exposure to Facebook on Self-Esteem. *Cyberpsychology, Behaviour and Social Networking*, 79-83.
- [124] Gosling, S. D. (2002). A Room with a Cue: Personality Judgements Based on Offices and Bedrooms. *Journal of Personality and Social Psychology*, 82, 379-398.
- [125] Gosling, S. D. (2007). Personality Impressions Based on Facebook Profiles. *Proceedings of the International Conference on Weblogs and Social Media*, 26-28. Retrieved from: <http://www.icwsm.org/papers/3-Gosling-Gaddis-Vazire.pdf>.
- [126] Granovetter, M. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 1360-1380.
- [127] Granovetter, M. (1982). The Strength of Weak ties: A Network Theory Revisited. In N. Lin, *Social Structure and Network Analysis*. Thousand Oaks: Sage Publications, 105-130.
- [128] Grootaert, C. (1998). Social Capital: The Missing Link? Working Paper 3. Washington, D. C: The World Bank.

-
- [129] Grootaert, C. N. (2004). Measuring Social Capital- An Integrated Questionnaire. *Working Paper No:18*. Washington: World Bank.
- [130] Grootaert, C., & Bastelaer, T. V. (2002). *The Role of Social Capital in Development: An Empirical Assessment*. Newyork: Cambridge University Press.
- [131] Grootaert, C., & Bastelaer, T. V. (2002). *Understanding and Measuring Social Capital: A Multidisciplinary Tool for Practitioners*. Washington: World Bank.
- [132] Gross, R., & Acquisti, A. (2005). Information Revelation and Privacy in Online Social Networks. *Paper presented at the WPES'05*. Alexandria, Virginia.
- [133] Gulati R. (1995). Social Structure and Alliance Formation Patterns: A Longitudinal Analysis. *Administrative Science Quarterly*, 40(4), 619-652.
- [134] Hair, J. F. (1998). *Multivariate Data Analysis*. New Jersey: Prentice-Hall International.
- [135] Hair, J. F., Ringle, C.M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Thoery and Practice*, 19(2), 139-152.
- [136] Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research. *Journal of the Academy of Marketing Science*, 40(3), 414-433.
- [137] Hampton, K., & Wellman, B. (2003). Neighboring in Netville: How the Internet Supports Community and Social Capital in a Wired Suburb. *City & Community*, 2(4), 277-311.
- [138] Hanifan, L. (1916). The Rural School Community Center. *Annals of the American Academy of Political Social Science*, 67, 130-138.
- [139] Hanifan, L. (1920). *The Community Center*. Boston: Nabu Press.
- [140] Hansen, M. T. (1999). The Search-Transfer Problem: The Role of Weak Ties in Sharing Knowledge across Organization Subunits. *Administrative Science Quarterly*, 44, 82-111.

- [141] Hansson, H., Mihailidis, P., & Larsson, K. (2007). The Rural Wings Project: Bridging the Digital Divide with Satellite Provided Internet. Phase 1: Identifying and Analysing the Learning Needs of 31 Communities in 10 Countries. *E-Learning*, 4(2), 107–115.
- [142] Hara, N. (2008). Internet Use for Political Mobilization: Voices of Participants. *First Monday*, 13(7). Retrieved from <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/rt/prinFRIENDLY/2123/1976>.
- [143] Harlow, S., & Harp, D. (2012). Collective Action on the Web: A Cross-Cultural Study of Social Networking Sites and Online and Offline Activism in the United States and Latin America. *Information, Communication & Society*, 15(2), 196-216.
- [144] Harris, J., & Renzo, P. (1997). Policy Arena - 'Missing Link' or Analytically Missing? The Concept of Social Capital - An Introductory Bibliographic Essay. *Journal of International Development*, 9(7), 919–937.
- [145] Galloway, L. & Mochrie, R. (2005). The Use of ICT in Rural Firms: a Policy Orientated Literature Review. *Information*, 7(3), 33–36.
- [146] Halman, L., & Luijckx, R. (2006). Social Capital in Contemporary Europe: Evidence from the European Social Survey. *Portuguese Journal of Social Science*, 5, 65–90.
- [147] Hargittai, E. (2007). Whose Space? Differences among Users and Non-Users of Social Network Sites. *Journal of Computer Mediated Communication*, 13(1), 276-297.
- [148] Harwood, C., (2006) Effectiveness of Intermediate Fidelity Simulation Training Technology in Undergraduate Nursing Education. *Journal of Advanced Nursing*, 4(3), 359-369.
- [149] He, W., Qiao, Q., & Wei, K. K. (2009). Social Relationship and its Role in Knowledge Management Systems Usage. *Information & Management*, 46(3), 175–180.
- [150] Helliwell, J. F., & Putnam, R. D. (2004). The Social Context of Well-being. *Philosophical Transactions of the Royal Society*, 359(1449), 1435–1446.

-
- [151] Helliwell, J. F., & Putnam, R. D. (1999). Education and Social Capital. *NBER Working Paper*, No. 7121. National Bureau of Economic Research. Cambridge: MA.
- [152] Henly, J.R., Danziger, S.K., & Offer, S. (2005). The Contribution of Social Support to the Material Well-being of Low Income Families. *Journal of Marriage and the Family*, 67(1), 122-140.
- [153] Herzog, H. (1944). What Do We Really Know about Daytime Serial Listeners? In P. F. Lazarsfeld & F. N. Stanton, *Radio Research*. New York: Duell, Sloan & Pearce, 3–33.
- [154] Hewitt, A., & Forte, A. (2006). Crossing Boundaries: Identity Management and Student/Faculty Relationships on the Facebook. *Paper presented at CSCW*. Banff, Alberta, Canada..
- [155] Hinds, P. J. (2005). Understanding Conflict in Geographically Distributed Teams: The Moderating Effects of Shared Identity, Shared Context, and Spontaneous Communication. *Organization Science*, 16, 290-307.
- [156] Hitt, M. A., Lee, H. U., & Emre, Y. (2002). The Importance of Social Capital to the Management of Multinational Enterprises: Relational Networks among Asian and Western firms. *Asia Pacific Journal of Management*, 19, 353-372.
- [157] Horrigan, J. B. (2002). Online communities: Networks that Nurture Long-distance Relationships and Local Ties. Pew Internet and American Life Project. Retrieved from http://www.pewinternet.org/pdfs/PIP_Communities_Report.pdf.
- [158] Hsu, M. H., Ju, T. L., Yen, C., & Chang, M. (2007). Knowledge Sharing Behavior in Virtual Communities: The Relationship between Trust, Self-efficacy, and Outcome Expectations. *International Journal of Human Computer Studies*, 65(2), 153-169.
- [159] Huang, H., & Helliwell, J. F. (2013). Comparing the Happiness Effects of Real and Online Friends. *Working Paper*. Cambridge: National Bureau of Economic Research.

- [160] Huang, H., Jyun, W., & Lin, C. (2011). To Stick or Not to Stick: The Social Response Theory in the Development of Continuance Intention from Organizational Cross-Level Perspective. *Computers in Human Behavior*, 27(5), 1963-1973.
- [161] Hurtado, S., Cuellar, M., & Guillermo, W. C. (2011). Quantitative Measures of Students' Sense of Validation: Advancing the Study of Diverse Learning Environments. *Enrollment Management Journal*, 5(2), 53-71.
- [162] Hussain, D. I. (2012). A Study to Evaluate the Social Media Trends among University Students. *International Educational Technology Conference (IETC), 2012*, ElsevierLtd, 639 – 645.
- [163] Ibarra, H., & Andrews, S. B. (1993). Power, Social Influence, and Sense Making: Effects of Network Centrality and Proximity on Employee Perceptions. *Administrative Science Quarterly*, 38, 277-303.
- [164] Ingram, P., & Roberts, P. (2000). Friendships among Competitors in the Sydney Hotel Industry. *American Journal of Sociology*, 106(2), 1-36.
- [165] Inkpen, A. C., & Tsang, E.W. (2005). Social Capital, Networks, and Knowledge Transfer. *Academy of Management Review*, 30, 146-165.
- [166] Jacobs, J. (1963). *The Death and Life of Great American Cities*. New York: Random House.
- [167] James, L. R., & Brett, J. M. (1984). Mediators, Moderators and Tests for Mediation. *Journal of Applied Psychology*, 69, 307-321.
- [168] Jarvenpaa, S. L. (1998). Is Anybody Out There? The Antecedents of Trust in Global Virtual Teams. *Journal of Management Information Systems*, 14(4), 29-64.
- [169] Jeffrey Boase, J. B. (2006). *The Strength of Internet Ties*. Washington: Pew Internet and American Life Project.
- [170] Jeroen, V. L., & Peter, V. A. (2010). Cyber-protest and Civil Society: The Internet and Action Repertoires in Social Movements. In Y. J. Yar, *Handbook of Internet Crime*. Cullompton, Devon, U.K.: Willan Publishing. 230-254.

- [171] Johnston, K., Mei-Miao, C., & Magnus, H. (2011). Use, Perception and Attitude of University Students Towards Facebook and Twitter. *The Electronic Journal Information Systems Evaluation*, 16(3). 201-211.
- [172] Joinson, A. (2008). 'Looking at', 'Looking up' or 'Keeping up with' People? Motives and Uses of Facebook. *Paper presented at the CHI 2008*. Florence, Italy. Retrieved from <http://portal.acm.org/citation.cfm?id=1357213>.
- [173] Jones, G. R., & George, J. M. (1998). The Experience and Evolution of Trust: Implications for Cooperation and Teamwork. *Academy of Management Review*, 23(3), 531-546.
- [174] Jones, S., & Fox, S. (2009). Generations Online in 2009. *Pew Internet and American Life Project*. Retrieved from <http://www.pewinternet.org/2009/01/28/generations-online-in-2009/>.
- [175] Josh Pasek, E. M. (2009). Realizing the Social Internet? Online Social Networking Meets Offline Civic Engagement. *Journal of Information Technology & Politics*, 197-215.
- [176] Josip Kolarec, M. C. (2013). Building Social capital through Social Networking: Strategy or Coincidence? *Proceedings of INTED 2013 Conference*, Valencia, Spain, 4733-4742.
- [177] Judd, C. M., & Kenny, D. A. (1981). Process Analysis: Estimating Mediation in Treatment Evaluations. *Evaluation Review*, 5, 602-619.
- [178] Judge, T. A., & Higgins, C. A. (1999). The Big Five Personality Traits, General Mental Ability, and Career Success across the Life Span. *Personnel Psychology*, 52, 621-652.
- [179] Juris, J. S. (2005). The New Digital Media and Activist Networking within Anti-Corporate Globalization Movements, *Annals of the AAPSS*, 597(1), 189-208.
- [180] Kalpidou, M. D. (2011). The Relationship between Facebook and the Well-Being of Undergraduate College Students. *Cyberpsychology, Behaviour, and Social Networking*, 183-189.

- [181] Kaplan, A. M. (2010). Users of the World, Unite! The Challenges and Opportunities of Social Media. *Business Horizons*, 59-68.
- [182] Kawachi, B., Kennedy, P., Lochner, K., & Prothrow S. D. (1997). Social Capital, Income Inequality, and Mortality. *American Journal of Public Health*, 87, 1491–1498.
- [183] Kaye, B. & Johnson, T. (2002). Online and in the Know: Uses and Gratifications of the Web for Political Information. *Journal of Broadcasting & Electronic Media*, 46(1), 54-71.
- [184] Kazienko, P., & Musiał, K. (2006). Social Capital in Online Social Networks. *Knowledge-Based Intelligent Information and Engineering Systems*, 417–424.
- [185] Keeley, B. (2007). *Human Capital: How What You Know Shapes Your Life*. Paris: OECD.
- [186] Kelly E. L., Conley, J. (1987). Personality and Compatibility: A Prospective Analysis of Marital Stability and Marital Satisfaction. *Journal of Personality and Social Psychology*, 52, 27–40.
- [187] Kenski, K., & Straud, N. J. (2006). Connections between Internet Use and Political Efficacy, Knowledge, and Participation, *Journal of Broadcasting & Electronic Media*, 50(2), 173-192.
- [188] Khan, I. A., Brinkman, W. P., Fine, N., & Hierons, R. M. (2008). Measuring Personality from Keyboard and Mouse Use. *Proceedings of the 15th European Conference on Cognitive Ergonomics: The Ergonomics of Cool Interaction*, 38-45.
- [189] Kink, N. & Hess, T. S. (2008). Search Engines as Substitutes for Traditional Information Sources? An Investigation of Media Choice. *Information Society*, 24(1), 18-29.
- [190] Klandermans, B. (1997). *The Social Psychology of Protest*. Basil Blackwell, Oxford, England.
- [191] Kline, R. (1998). *Principles and Practice of Structural Equation Modeling*. NY : Guilford Press.

- [192] Knack, S., Keefer, P. (1997). Does Social Capital Have an Economic Payoff? A Cross-Country Investigation. *The Quarterly Journal of Economics*, 112(4), 1251–88.
- [193] Kobayashi, T., Ikeda, K., & Miyata, K. (2006). Social Capital Online: Collective Use of the Internet and Reciprocity as Lubricants of Democracy. *Information, Community & Society*, 9(5), 582–611.
- [194] Koroleva, K. K. (2011). It's All About Networking! Empirical Investigation of Social Capital Formation on Social Network Sites. *ICIS 2011 Proceedings*.
- [195] Kosinski, M. S. (2013). Private Traits and Attributes are Predictable from Digital Records of Human Behavior. *Proceedings of the National Academy of Sciences*, 110(15), 5802–5805. Retrieved from <http://dx.doi.org/10.1073/pnas.1218772110>.
- [196] Krackhardt, D. A. (1993). Informal Networks: The Company behind the Chart. *Harvard Business Review*, 104-111.
- [197] Kraut, R. (2002). Internet Paradox Revisited. *Journal of Social Issues*, 58(1), 49-74.
- [198] Kraut, R. (1996). Internet Paradox: A Social Technology that Reduces Social Involvement and Psychological Well-being? *American Psychologist*, 1011-1031.
- [199] Krishna, A. & Uphoff, N. (2002). Mapping and Measuring Social Capital through Assessment of Collective Action to Conserve and Develop Watersheds in Rajasthan, India. In T. V. Bastelaer, *The Role of Social Capital in Development*, Cambridge University Press: Melbourne, 115-124.
- [200] Krishna, A. & Uphoff, N. (1999). Mapping and Measuring Social Capital: A Conceptual and Empirical Study of Collective Action for Conserving and Developing Watersheds in Rajasthan, India. *Social Capital Initiative Working Paper No:13*.
- [201] Kwon, O. & Wen, Y. (2010). An Empirical Study of the Factors Affecting Social Network Service Use. *Computers in Human Behavior*, 26(2), 254-263.

- [202] Kwon, S., & Adler, P. S. (2002). Social capital: Prospects for a New Concept. *The Academy of Management Review*, 27(1), 17-40.
- [203] Landers, R. N. (2006). An Investigation of Big Five and Narrow Personality Traits in Relation to Internet Usage. *Computers in Human Behavior*, 22, 283-293.
- [204] LaRose, R. & Eastin, M. S. (2004). A Social Cognitive Theory of Internet Uses and Gratifications: Toward a New Model of Media Attendance. *Journal of Broadcasting & Electronic Media*, 48(3), 358-377.
- [205] Larsen, L., Sharon, L. H., & Shaphard, W. (2004). Bonding and Bridging: Understanding the Relationship between Social Capital and Civic Action. *Journal of Planning Education and Research*, 24, 64-77.
- [206] Law, S. P. (2008). Fostering Knowledge Exchange in Online Communities: a Social Capital Building Approach. *ICIS Proceedings. Paper 173*.
- [207] Leatherman, J. C. (2000). *Internet-based Commerce: Implications for Rural communities. Reviews of Economic Development Literature and Practice*, 5, US Economic Development Administration, Washington.
- [208] Lee, S. M. (2011). An Integrative Research Framework for the Online Social Network Service. *Service Business*, 5(3), 259-276.
- [209] Lenhart, A. (2009). Adults and Social Network Websites - Pew Internet Project Data Memo, in *Pew Internet and American Life Project*. Retrieved from http://www.pewinternet.org/PFF/r/272/report_display.asp.
- [210] Leung, L. (2001). College Student Motives for Chatting on ICQ. *New Media & Society*, 3, 483-500.
- [211] Levin, D. Z., & Cross, R. (2004). The Strength of Weak Ties You Can Trust: The Mediating Role of Trust in Effective Knowledge Transfer. *Management Science*, 50(11), 1477-1490.
- [212] Lin, N. (1999). Building a Network Theory of Social Capital. *Connections*, 22(1), 28-51.

- [213] Lin, N. (2001). *Social Capital: A Theory of Structure and Action*. London and New York: Cambridge University Press.
- [214] Lin, N. (2001). Social Capital: Social Networks, Civic Engagement or Trust? *Hongkong Journal of Sociology*, 2, 1-38.
- [215] Lin, N. & Lu, J.Y. (2011). Acetylation of Yeast AMPK Controls Intrinsic Aging Independently of Caloric Restriction. *Cell*, 146(6), 969-79.
- [216] Liu, Y. G. (2011). Analyzing Facebook Privacy Settings: User Expectations vs. Reality. *Proceedings of the 2011 ACM SIGCOMM Conference on Internet Measurement Conference*, 61–70.
- [217] Lupia, L., & Sin, G. (2003). Which Public Goods are Endangered? How Evolving Technologies Affect the Logic of Collective Action. *Public Choice*, 117, 315-331.
- [218] Lyon, F. (2000). Trust, Networks and Norms: The 1147 Creation of Social Capital in Agricultural Economics 1148 in Ghana. *World Development*, 28(4), 663–681.
- [219] MacKenzie, S. B., Podsakoff, P. M., & Cheryl, B. J. (2005). The Problem of Measurement Model Misspecification in Behavioral and Organizational Research and Some Recommended Solutions. *Journal of Applied Psychology*, 90(4), 710-730.
- [220] Madhusudhan, M. (2012). Use of Social Networking Sites by Research Scholars of the University of Delhi: A Study. *The International Information and Library Review (Elsevier)*, 44(2), 100-113.
- [221] Maeve, D. (2014). *Social Media Update 2013*. Washington, D.C: Pew Research Center.
- [222] Malaby, T. (2006). Parlaying Value: Capital in and Beyond Virtual Worlds. *Games and Culture*, 1(2), 141-162.
- [223] Mandarano, L. M. (2011). Building Social Capital in the Digital Age of Civic Engagement. *Journal of Planning Literature*, 25(2), 123-135.

- [224] Marcus, B. M. (2006). Personality in Cyberspace: Personal Web Sites as Media for Personality Expressions and Impressions. *Journal of Personality and Social Psychology*, 90(6), 1014–1031.
- [225] Marlow, M. B. (2011). Social Capital on Facebook: Differentiating Uses and Users. *Proceedings of the International Conference on Human Factors in Computing Systems, CHI 2011*, Vancouver, BC, Canada.
- [226] Marsden, P. V., & Campbell, K. E. (1984). Measuring Tie-Strength. *Social Forces*, 63(2), 482-501.
- [227] Marwell, G., & Oliver, P. (1993). *The Critical Mass in Collective Action: A Micro-social Theory*. New York: Cambridge University Press.
- [228] Mayer, R. D. (1995). An Integrative Model of Organizational Trust. *Academy of Management Review*, 20, 709-734.
- [229] Mayfield, A. (2008). *What's Social Media? An e-book*. UK: i-Crossing.
- [230] Mazer, J. P. (2007). I'll See you on "Facebook" The Effects of Computer Mediated Teacher Self Disclosure on Student Motivation, Affective Learning, and Classroom Climate. *Communication Education*, 56(1), 1–17.
- [231] McCarthy & Mayer, N. Z. (1977). Resource Mobilization and Social Movements: A Partial Theory, *American Journal of Sociology*, 82(6), 1212-1241.
- [232] McCrae, R. R. (1992). An Introduction to the Five Factor Model and its Applications. *Journal of Personality*, 60, 175-215.
- [233] McGuire, W. J. (1974). Psychological Motives and Communication Gratifications. In J. G. E.Katz, *The Uses of Mass Communications: Current Perspectives on Gratifications Research*. Beverly Hills, CA: Sage. 167–196.
- [234] McKnight, D. A. (2002). What Trust Means in E-commerce Customer Relationships: An Interdisciplinary Conceptual Typology. *International Journal of Electronic Commerce*, 6, 35-59.

- [235] Mcknight, D. H. (2002). Developing and Validating Trust Measures for E-commerce: An Integrative Typology. *Information Systems Research*, 13(3), 334–359.
- [236] McPherson, M., Smith, L. L., & Cook, J. M. (2001). Birds of a Feather: Homophily in Social Networks. *Annual Review of Sociology*, 415-444.
- [237] Meek, D. (2011). YouTube and Social Movements: a Phenomenological Analysis of Participation, Events and Cyberplace. *Antipode*, 44, 1429–1448.
- [238] Mehdizadeh, S. (2010). Self-Presentation 2.0: Narcissism and Self-Esteem on Facebook. *Cyberpsychology, Behaviour and Soical Networking*, 357-364.
- [239] Mesch, G., & Talmud, I. (2006). The Quality of Online and Offline Relationships: The Role of Multiplexity and Duration of Social Relationships, *The Information Society*, 22(3), 137-148.
- [240] Mishra, A. K. (1996). Organizational Responses to Crisis: The Centrality of Trust. In R. M. Tyler, *Trust in Organizations: Frontiers of Theory and Research*. Thousand Oaks: Sage. 261–287.
- [241] Mislove, A. E. (2009). Online Social Networks: Measurement, Analysis, and Applications to Distributed Information Systems. *Thesis*. Rice University.
- [242] Molenaers, N. (2003). Associations or Informal Networks? Social Capital and Local Development Practices. In M. H. Stolle, *Generating Social Capital*. New York: Palgrave.
- [243] Moore, S. A. (2005). The Privileging of Communitarian Ideas: Citation Practices and the Translation of Social Capital into Public Health Research. *American Journal of Public Health*, 95(8), 1330-1337.
- [244] Moore, K., & McElroy, J. C. (2012). The Influence of Personality on Facebook Usage, Wall Postings, and Regret. *Computers in Human Behaviour*, 28, 267–274.

- [245] Moran, P. (2005). Structural vs. Relational Embeddedness: Social Capital and Managerial Performance. *Strategic Management Journal*, 1129-1151.
- [246] Moreno, M. A. (2008). Research Ethics in the MySpace Era. *Pediatrics*, 121, 157-161.
- [247] Nadkarni, A., & Hofmann, S. G. (2012). Why Do People Use Facebook? *Personality and Individual Differences*, 52, 243–249.
- [248] Nahapiet, J., & Ghoshal, S. (1998). Social Capital, Intellectual Capital and Organizational Advantage. *Academy of Management Review*, 23(2), 242-266.
- [249] Narayan, D. & Pritchett, L. (1997). Cents and Sociability - Household Income and Social Capital in Rural Tanzania. *Policy Research Working Paper No. 1796*. Washington: DC: World Bank.
- [250] Neergaard, H., & Madsen, H. (2004). Knowledge Intensive Entrepreneurship in a Social Capital Perspective. *Journal of Enterprising Culture*, 12(2), 105-125.
- [251] Newton, K. (2001). Trust, Social Capital, Civil Society, and Democracy. *International Political Science Review*, 22, 201-214.
- [252] Nicole J, Schaefer, M. (2004). *Conceptualizing Social Capital among Young People: Towards a New Theory*. Retrieved from <http://www.jstor.org/stable/10.7721/chilyoutenvi.14.1.0153>.
- [253] Nie, N. H., & Erbring, L. (2002). Internet and Society: A Preliminary Report. *IT and Society*, 275-283.
- [254] Nielsen, W. (2010). What Americans Do Online: Social Media and Games Dominate Activity. Media and Entertainment. Retrieved from http://blog.nielsen.com/nielsenwire/online_mobile/what-americans-do-online-social-media-and-games-dominate-activity/.
- [255] Nip, J. (2004). The Queer Sisters and its Electronic Bulletin Board: A Study of the Internet for Social Movement Mobilization. In Van de Donk, W., & Rucht, D., *Cyberprotest: New Media, Citizens and Social Movements*, London: Routledge, 233–258.

-
- [256] Nov, P. B. (2011). Facebook Use and Social Capital – A Longitudinal Study. *Proceedings of the Fifth International AAAI Conference on Weblogs and Social Media*, 454-457.
- [257] Nunnally, J. C. (1978). *Psychometric Theory (2nd Edition)*. New York: McGraw-Hill.
- [258] Nunnally, J. C., & Ira, H. B. (1994). *Psychometric Theory (3rd Edition)*. New York : McGraw-Hill .
- [259] Oh, H. L. (2006). A Multilevel Model of Group Social Capital. *Academy of Management Review*, 31(2), 569-582.
- [260] Olson, M. (1965). *The Logic of Collective Action. Public Goods and the Theory of Groups*. Cambridge: Harvard University Press.
- [261] Ostrom, E. A. (2003). *Trust and Reciprocity*. New York: Russell Sage.
- [262] Oxoby, R. (2009). Understanding Social Inclusion, Social Cohesion, and Social Capital. *International Journal of Social Economics*, 36(12), 1133-1152.
- [263] Ozer D. J., & Benet, M. V. (2006). Personality and the Prediction of Consequential Outcomes. *Annual Review of Psychology*, 57, 401–421.
- [264] Palmgreen, P., & Rayburn, J. D. (1979). Uses and Gratifications and Exposure to Public Television: A Discrepancy Approach. *Communication Research*, 6, 155-180.
- [265] Papacharissi, A., & Mendelson, Z. (2011). Toward a New(er) Sociability: Uses, Gratifications and Social Capital on Facebook. In S. Papathanassopoulos, *Media Perspectives for the 21st Century*. Oxon, UK: Routledge. 212–230.
- [266] Parks, M. R., & Floyd, K. (1996). Making Friends in Cyberspace. *Journal of Computer Mediated Communication*, 1(4). Retrieved from <http://jcmc.indiana.edu/vol1/issue4/parks.html>
- [267] Pearl, J. (2009). *Causality: Models, Reasoning, and Inference*. Cambridge, England: Cambridge University Press.

- [268] Peluchette, J. & Karl, K. (2008). Social Networking Profiles: An Examination of Student Attitudes Regarding Use and Appropriateness of Content. *Cyberpsychology, Behavior, and Social Networking*, 11(1), 95-97.
- [269] Peng, D. X., & Lai, F. (2012). Using Partial Least Squares in Operations Management Research: A Practical Guideline and Summary of Past Research. *Journal of Operations Management*, 30, 467-480.
- [270] Petróczy, A. (2007). Measuring Tie-strength in Virtual Social Networks. *Connections*, 27(2), 39 -52.
- [271] Pfeil, U. A. (2009). Age Differences in Online Social Networking - A Study of User Profiles and the Social Capital Divide among Teenagers and Older Users in MySpace. *Computers in Human Behaviour*, 25(3), 643-654.
- [272] Phulari, S. S. (2010). Understanding Formulation of Social Capital in Online Social Network Sites (SNS). *IJCSI International Journal of Computer Science Issues*, 7(1), 92-96.
- [273] Piccoli, G., & Ives, B. (2003). Trust and the Unintended Effects of Behavior Control in Virtual Teams. *MIS Quarterly*, 27(3), 368-395.
- [274] Polat, R. K. (2005). The Internet and Political Participation: Exploring the Explanatory Links, *European Journal of Communication*, 20(4), 435–459.
- [275] Pope, J. (2003). *Social Capital ad Social capital Indicators: A Reading List*. Public Health Information Development Unit, University of Adelaide.
- [276] Poropat, A. E. (2005). An Examination of the Relationship between Personality and Citizenship Performance in Academic and Workplace Settings. *Doctoral Dissertation*, Griffith University, Brisbane, Queensland, Australia.
- [277] Portes, A., & Landolt, P. (1996). *Unsolved Mysteries: The Tocqueville Files II. The Downside of Social Capital*. American Prospect 7. Retrieved from www.prospect.org/archives/26/26-cnt2.html.
- [278] Portes, A. (1998). Social Capital: Its Origins and Applications in Modern Sociology. *Annual Review of Sociology*, 24, 1-24.

-
- [279] Postmes, T. & Brunsting, S. (2002). Collective Action in the Age of the Internet: Mass Communication and Online Mobilization. *Social Science Computer Review*, 3(20), 290–301.
- [280] Pretty, J & Ward, H. (2001). Social Capital and the Environment. *World Development*, 29(2), 209-227.
- [281] Pretty, J. (2003). Social Capital and the Collective Management of Resources. *Science*, 302, 1912-1914.
- [282] Putnam, R. D. (1995). Bowling Alone: America's Decline in Social Capital. *Journal of Democracy*, 6(1), 65-78.
- [283] Putnam, D., Robert Leionardi, & Raffaella Y Nanetti. (1993). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, N.J: Princeton University Press.
- [284] Putnam, R. D. (1999). *Civic Disengagement in Contemporary America*. Government and Opposition/Leonard Schapiro. London School of Economics, 135-156.
- [285] Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.
- [286] Putnam, R. D. (2010). Religion, Social Networks, and Life Satisfaction. *American Sociological Review*, 75(6), 914-933.
- [287] Quan-Haase, A. (2007). Instant Messaging on Campus: Use and Integration in Student's Everyday Communication. *The Information Society*, 105-115.
- [288] Quan-Haase, A. (2010). Uses and Gratifications of Social Media: A Comparison of Facebook and Instant Messaging. *Bulletin of Science, Technology & Society*, 30(5), 350-361.
- [289] Quan-Haase, A. (2012). Is the Uses and Gratifications Approach Still Relevant in a Digital Society? Theoretical and Methodological Applications to Social Media. *Journal of Mass Communication & Journalism*, 2(7), 1-3.

- [290] Quercia, D. E. (2012). Tracking Gross Community Happiness from Tweets. *15th ACM Conference on Computer Supported Cooperative Work (CSCW)*. Seattle.
- [291] Raacke, J. B., & Raacke, J. (2008). MySpace and Facebook: Applying the Uses and Gratifications Theory to Exploring Friend Networking Sites. *Cyberpsychology & Behavior*, *11*(2), 169–174.
- [292] Radmacher, K.(2006). Are There Gendered Pathways to Intimacy in Early Adolescents' and Young Adults' Friendships? *Journal of Adolescent Research*, *21*(4), 415-448.
- [293] Rajabi, Z. (2010). Reconstruction of Users Political Inclinations in Virtual Social Networks. *Master Dissertation*. Tehran. Allameh Tabatabaei University.
- [294] Rau, P.P., Gao, Q., & Ding, Y. (2008). Relationship between the Level of Intimacy and Lurking in Online Social Network Services. *Computer Human Behavior*, *24*(6), 2757-2770.
- [295] Reagans, R., & Mcevily, B. (2003). Network Structure and Knowledge Transfer: The Effects of Cohesion and Range. *Administrative Science Quarterly*, *48*(2), 240–267.
- [296] Rentflow, P. J. (2003). The Do Remi's of Everyday Life: The Structure and Personality Correlates of Music Preferences. *Journal of Personlaity and Social Psychology*, *84*, 1236-1256.
- [297] Rentflow, P. J. (2006). Message in a Ballad: The Role of Music Preference in Interpersonal Perception. *Psychological Science*, *17*, 236-242.
- [298] Resnick, P. (2001). Beyond Bowling Together: Sociotechnical Capital. In J. Carroll, *HCI in the New Millennium*. Boston: MA: Addison-Wesley. 247-272.
- [299] Ridings, C. M. (2004). Virtual Community Attraction: Why People Hang Out Online. *Journal of Computer-Mediated Communication*, *10*(1).

-
- [300] Rill, L., & Aubrey, J. S. (2013). Investigating Relations between Facebook Use and Social Capital among College Undergraduates. *Communication Quarterly*, 61(4), 479-496.
- [301] Roberts, J., Hann, I. H. & S. Slaughter. (2006). Understanding the Motivations, Participation and Performance of Open Source Software Developers: A Longitudinal Study of the Apache Projects. *Management Science*, 52, 984-999.
- [302] Robison, I. J. (2002). Is Social Capital Really Capital? *Review of Social Economy*, 60, 1-24.
- [303] Ross, C. O. (2009). Personality and Motivations Associated with Facebook Use. *Computers in Human Behavior*, 25(2), 578-586.
- [304] Rousseau, D. M. (1998). Not So Different After All: A Cross-Discipline View of Trust. *Academy of Management Review*, 23(3), 393-404.
- [305] Rubin, A. M. (1994). Media Uses and Effects: A Uses and Gratifications Perspective. In D. J. Zillmann, *Media effects: Advances in Theory and Research: Uses and Gratifications Theory in the 21st Century*. Mass Communication & Society.
- [306] Rubin, A. M. (2009). Uses and Gratifications: An Evolving Perspective of Media Effects. *The SAGE Handbook of Media Processes and Effects*, 147-159.
- [307] Ruggiero, T. E. (2000). Uses and Gratifications Theory in the 21st Century. *Mass Communication & Society*, 3(1), 3-37.
- [308] Rusciano, F. L. (2001). Surfing Alone: The Relationship among Internet Communities, Public Opinion, Anomie, and Civic Participation. *Annual Conference of the World Association for Public Opinion Research*. Rome.
- [309] Safko, J. (2007). *The Social Media Bible: Hoboken*. Wiley.
- [310] Schneider, J. (2006). *Social Capital and Welfare Reform*. New York, NY: Columbia University Press.

- [311] Schumacker, R., & Lomax, R. (2004). *A Beginner's Guide to Structural Equation Modeling (2nd Edition)*. Mahwah, NJ: Lawrence Erlbaum.
- [312] Sebastian, V., Namsu, P., & Kerk, F. K. (2008). *Lessons from Facebook: The Effect of Social Networks on College Student's Social Capital*. International Symposium on Online Journalism.
- [313] Selfhout, M. (2009). In the Eye of the Beholder: Perceived, Actual, and Peer Rated Similarity in Personality, Communication, and Friendship Intensity during the Acquaintanceship Process. *Journal of Personal Social Psychology*, 96, 1152-1165.
- [314] Shah, D. V., Kwak, N., & Holbert, R. L. (2001). Connecting and Disconnecting with Civic Life: Patterns of Internet Use and the Production of Social Capital. *Political Communication*, 18(2), 141-162.
- [315] Sheldon, K. M., Abad, N., & Hinsch, C. (2011). A Two-Process View of Facebook Use and Relatedness Need Satisfaction: Disconnection Drives Use, and Connection Rewards It. *Journal of Personality and Social Psychology*, 766-775.
- [316] Sheng, Y. W. (2012). The Influence of Social Self Efficacy on Social Trust and Social Capital - A Case Study of Facebook. *The Turkish Online Journal of Educational Technology*, 11(2).
- [317] Shi, N., Lee, M., Cheung, & Chen. (2010). The Continuance of Online Social Networks: How to Keep People Using Facebook, *Proceedings of Hawaii International Conference on System Science*, Kauai, Hawaii, USA.
- [318] Shields, N., & Kane, J. (2011). Social and Psychological Correlates of Internet Use among College Students. *Cyberpsychology Journal of Psychosocial Research on Cyberspace*, 5(1).
- [319] Shirky, C. (2011). Political Power of Social Media Technology, the Public Sphere, and Political Change. *Foreign Affairs*, 90, 28-41.
- [320] Siisiainen, M. (2000). Two Concepts of Social Capital: Bourdieu vs. Putnam. *ISTR Fourth International Conference*. Ireland.

- [321] Siisiainen, M. (2003). One Concept, Two Approaches: Bourdieu and Putnam on Social Capital. *International Journal of Contemporary Sociology*, 183-203.
- [322] Simon, B. (1998). Individuals, Groups and Social Change: On the Relationship between Individual and Collective Self-Interpretation and Collective Action. In C. Sedikides, J. Schopler, & C. Insko (edn.), *Intergroup Cognition and Intergroup Behaviour*, Mahwah, N. J., Lawrence Erlbaum Associates Inc. 257-282.
- [323] Sledgianowski, D., & Kulviwat, S. (2009). Using Social Network Sites: The Effects of Playfulness, Critical Mass and Trust in a Hedonic Context. *Journal of Computer Information Systems*, 49, 74-83.
- [324] Smedlund, A. (2008). The Knowledge System of a Firm: Social Capital for Explicit, Tacit and Potential Knowledge. *Journal of Knowledge Management*, 12(1), 63-77.
- [325] Smith, J. (2006). *Updated Lists of All Companies and Regions on Facebook*. Retrieved from <http://www.insidefacebook.com/2006/11/15>.
- [326] Smith, H. J., & Tyler, T. R. (1997). Choosing the Right Pond: The Impact of Group Membership on Self-Esteem and Group Oriented Behavior. *Journal of Experimental Social Psychology*, 33(2), 146-170.
- [327] Smock A. D., Ellison N. B., & Lampe C. W. (2011). Facebook as a Toolkit: A Uses and Gratifications Approach to Unbundling Feature Use. *Computers in Human Behavior*, 2322-2329.
- [328] Snijders, T. A., & Martin, V. D. (2005). The Resource Generator: Social Capital Quantification with Concrete Items. *Social Networks*, 27, 1-29.
- [329] Soldz S., Vaillant, G. E. (1999). The Big Five Personality Traits and the Life Course: A 45-year Longitudinal Study. *Journal of Research in Personality*, 33, 208-232.
- [330] Soubeyran, A. W. (2002). District Formation and Local Social Capital: a (tacit) Co-opetition Approach. *Journal of Urban Economics*, 52, 65-92.

- [331] Stefanone, M. A. (2011). The Value of Online “Friends”: Networked Resources Via Social Network Sites. *First Monday*, 16(2).
- [332] Steinfield, C., & Ellison, N. (2008). Social Capital, Self-esteem, and Use of Online Social Network Sites: A Longitudinal Analysis. *Journal of Applied Developmental Psychology*, 434-445.
- [333] Steinfield, C., & Ellison, N. (2012). Online Social Network Sites and the Concept of Social Capital. In F. L. Lee, *Frontiers in New Media Research*. New York: Routledge. 115-131
- [334] Stolle, D. M. (2003). *Generating Social Capital*. Palgrave Macmillan US.
- [335] Stone, W. (2001). *Measuring Social capital : Towards a Theoretically Informed Measurement for Researching Social Capital in Family and Community Life*. Australia: Australian Institute of Family Studies.
- [336] Stutzman, F. (2006). An Evaluation of Identity Sharing Behavior in Social Network Communities. *Paper presented at the IDMAA and IMS Code Conference*. Oxford, Ohio.
- [337] Subrahmanyam, K., & Greenfield, P. (2008). Online Communication and Adolescent Relationships. *The Future of Children*, 18, 119–146.
- [338] Sum, S. M. (2008). Internet Technology and Social Capital: How the Internet Affects Senior's Social Capital and Well-being. *Journal of Computer Mediated Communication*, 14(1), 202-220.
- [339] Svendsen, G. T. (2009). *Handbook of Social Capital*. UK: Edward Elgar Publishing Limited.
- [340] Saswati, G., & Debarati, D. (2014). Social Networking Sites and Privacy Issues Concerning Youths, *Global Media Journal- Indian Edition*, 5(1), Sponsored by the University of Calcutta.
- [341] Swickert, R. J. (2002). Relationship between Internet Use, Personality and Social Support. *Computers in Human Behavior*, 18, 437–451.
- [342] Szreter, S. (2000). Social Capital, the Economy, and Education in Historical Perspective. In T. Schuller, *Social Capital: Critical Perspectives*. Oxford: Oxford University Press.

- [343] Tajfel, H., & Turner, J. C. (1986). The Social Identity Theory of Intergroup Behavior. In S. Worchel, *Psychology of Intergroup Relations*. Chicago: Nelson-Hall.
- [344] Tajfel, H., & Turner, J. C. (1979). An Integrative Theory of Intergroup Conflict. In W. G. Worchel, *The Social Psychology of Intergroup Relations*. Monterey, CA: Brooks-Cole. 33-48.
- [345] Tausch, N., Becker, J. C., Spears, R., Christ, O., Saab, R., Singh, P., & Siddiqui, R. N. (2011). Explaining Radical Group Behaviour: Developing Emotion and Efficacy Routes to Normative and Non-Normative Collective Action. *Journal of Personality and Social Psychology*, *101*(1), 129–148.
- [346] Tett, R. J. (1991). Personality Measures as Predictors of Job Performance: A Meta-analytic Review. *Personnel Psychology*, *44*, 703-742.
- [347] Thorson, K., Driscoll, K., Ekdale, B., Edgerly, S., Thompson, L. G., Schrock, A., & Wells, C. (2013). YouTube, Twitter and the Occupy Movement. *Information, Communication & Society*, *16*, 421–451.
- [348] Tilly, C. (1978). *From Mobilization to Revolution*, Reading, MA: Addison-Wesley Publishing Company.
- [349] Tilly, C. (2005) Introduction to Part II: Invention, Diffusion, and Transformation of the Social Movement Repertoire. *European Review of History*, *12*(2), 307–320.
- [350] Tipa Sriyabhand, S. P. (2014). An Empirical Study about the Role of Personality Traits in Information Technology Adoption. *Silpakorn University Journal of Science, Humanities and Arts*, *14*(2), 67-90.
- [351] Tong, S. T., & Walther, J. B. (2011). The Confirmation and Disconfirmation of Expectancies in Computer Mediated Communication. *Communication Research*, *42*(2), 186 – 212.
- [352] Tosun, L. P. (2012). Motives for Facebook Use and Expressing “True Self” on the Internet. *Computers in Human Behavior*, *28*, 1510–1517.

- [353] Townsend, L., & Sathiaseelan, G. F. (2013). Enhanced Broadband Access as a Solution to the Social and Economic Problems of the Rural Digital Divide. *Local Economy*, 28(6), 580–595.
- [354] Trisha, T.C., & Lin, V. C. (2011). Factors Affecting the Adoption of Social Network Sites: Examining Four Adopter Categories of Singapore's Working Adults. *Asian Journal of Communication*, 221-242.
- [355] Tsai, W. A. (1998). Social Capital and Value Creation: The Role of Intra-firm Networks. *Academy of Management Journal*, 464- 478.
- [356] Uphoff, N., & C. M. Wijayarathna. (2000). Demonstrated Benefits from Social Capital: The Productivity of Farmer Organisations in Galoya, Sri Lanka. *World Development*, 28(11).
- [357] Van Zomeren, M., & Iyer. (2009). Introduction to the Social and Psychological Dynamics of Collective Action. *Journal of Social Issues*, 65(4), 645–660.
- [358] Van Zomeren, M., Spears, R., Fischer, A. H., & Leach, C. W. (2004). Put Your Money Where Your Mouth Is! Explaining Collective Action Tendencies through Group-based Anger And Group Efficacy. *Journal of Personality and Social Psychology*, 87(5), 649–664.
- [359] Vasalou, A. J. (2010). Cultural Differences, Experience with Social Networks and the Nature of "True Commitment" in Facebook. *International Journal of Human Computer Studies*, 719-728.
- [360] Vazire, S., & Gosling, S. D. (2004). E-Perceptions: Personality Impressions Based on Personal Websites. *Journal of Personality and Social Psychology*, 87(1), 123–132.
- [361] Vergeer & Pelzer (2009). Consequences of Media and Internet Use for Offline and Online Network Capital and Well Being: A Causal Model Approach, *Journal of Computer Mediated Communication*, 15(1), 189-210.
- [362] Wagner, C. H. (1982). Simpson's Paradox in Real Life. *The American Statistician*, 36(1), 46–48.

- [363] Walgrave, S. V. (2008). 'Do the Vote Test': The Electoral Effects of a Popular Vote Advice Application at the 2004 Belgian Elections. *Acta Polit*, 43-50.
- [364] Wanberg, C. R. (2000). Predictors and Outcomes of Networking Intensity among Unemployed Job Seekers. *Journal of Applied Psychology*, 85(4), 491-504.
- [365] Warren, M. (2007). The Digital Vicious Cycle: Links between Social Disadvantage and Social Exclusion in Rural Areas. *Telecommunications Policy*, 31(7), 374–388.
- [366] Wasko, M.M., & Faraj, S. (2005). Why Should I Share? Examining Social Capital and Knowledge Contribution in Electronic Networks of Practice. *MIS Quarterly*, 29(1), 35-37.
- [367] Weaver, R., & Habibov, N. (2012). Social Capital, Human Capital, and Economic Well-Being in Knowledge Economy: Results from Canada. *Journal of Sociology and Social Welfare*, 39(2), 31-53.
- [368] Webber, M. (2008). Access to Social Capital and the Course of Depression: A prospective Study. *PhD Thesis*. London: King's College London. Retrieved from <http://martinwebber.net/wp-content/uploads/2012/02/webber-phd-thesis.pdf>
- [369] Wehrli, S. (2008). Personality on Social Network Sites: An Application of the Five Factor Model. *Working paper, ETH Zurich, Zurich*. .
- [370] Wellman, B. (2001). Does the Internet Increase, Decrease or Supplement Social Capital? Social Networks, Participation, and Community Commitment. *American Behavioral Scientist*, 45, 437-456.
- [371] Wellman, B., & Gulia, M. (1999). The Network Basis of Social Support: A Network is More Than the Sum of its Ties. In B.Wellman, *Networks in the Global Village: Life in Contemporary Communities*. Boulder, CO: Westview Press. 83–118.
- [372] Wetzels, M. O. (2009). Using PLS Path Modeling for Assessing Hierarchical Construct Models: Guidelines and Empirical Illustration, *MIS Quarterly*, 33(1), 177-195.

- [373] Whitener, E. M. (1998). Managers as Initiators of Trust: An Exchange Relationship Framework for Understanding Managerial Trustworthy Behavior. *Academy of Management Review*, 23(3), 513-530.
- [374] Whiting, A. A. (2013). Why People Use Social Media: A Uses and Gratifications Approach. *Qualitative Market Research, An International Journal*, 16(4), 362-369.
- [375] Williams, D. (2006). On and Off the Net: Scales for Social Capital in an Online Era. *Journal of Computer Mediated Communication*, Article 11, 11(2).
- [376] Wise, K. A. (2010). Emotional Responses during Social Information Seeking on Facebook. *Cyberpsychology, Behavior, and Social Networking*, 13(5), 555-562.
- [377] Wojcieszak, M. (2009). Carrying Online Participation Offline: Mobilization by Radical Online Groups and Politically Dissimilar Offline Ties. *Journal of Communication*, 59, 564–586.
- [378] Wolfradt, U., & Doll, J. (2001). Motives of Adolescents to Use the Internet as a Function of Personality, Personal and Social Factors. *Journal of Educational Computing Research*, 24(1), 13-27.
- [379] Woolcock, M., & Narayan, D. (2001). Social Capital: Implications for Development Theory, Research and Policy. *The World Bank Research Observer*, 15(2), 225-249.
- [380] Yadav, R. (2012). Understanding Attitude and Predicting Behaviour in Online Social Networks among College Students. 4th Conference on Excellence in Research and Education. Indian Institute of Management Indore. 84-98.
- [381] Yamamura, E. (2010). The Role of Social Trust in Reducing Long-term Truancy and Forming Human Capital in Japan, *Economics of Education Review*, 30(2), 380-389.
- [382] Yang, C.C., & Brown, B.B. (2013). Motives for Using Facebook, Patterns of Facebook Activities, and Late Adolescents' Social Adjustment to College, *Journal of Youth and Adolescence*, 42(3), 403-416.

- [383] Ye, Q., Fang, B., & Hsieh, J. P. (2012). Can Social Capital be Transferred Cross the Boundary of the Real and Virtual Worlds? An Empirical Investigation of Twitter. *Journal of Electronic Commerce Research*, 145-156.
- [384] Yoon, S. (2014). Does Social Capital Affect SNS Usage? A Look at the Roles of Subjective Well-being and Social Identity. *Computers in Human Behavior*, 41, 295–303.
- [385] Yusuf, A. (2008). Social Capital and Household Welfare in Kwara State, Nigeria. *Journal of Human Ecology*, 23(3), 219-229.
- [386] Zhang, K. Z., Lee, M. K., Cheung, C. M., & Chen, H. (2009). Understanding the Role of Gender in Bloggers' Switching Behavior. *Decision Support Systems*, 540–546.
- [387] Zhang, N. Y. (2013). *What Has Social Networking Service (SNS) Research Done in the Half Decade? Review, Critiques, and Discussion of the Studies from 2006 to 2011*. Hong Kong: Centre for Chinese Media and Comparative Communication Research.
- [388] Zheng, W. (2010). A Social Capital Perspective of Innovation from Individuals to Nations: Where is Empirical Literature Directing Us? *International Journal of Management Review*, 151-183.
- [389] Zhong, Z. J. (2011). The Effects of Collective MMORPG (Massively Multiplayer Online Role-Playing Games) Play on Gamers' Online and Offline Social Capital. *Computers in Human Behaviour*, 27, 2352-2363.
- [390] Zywica, J., & Danowski, J. (2008). The Faces of Facebookers: Investigating Social Enhancement and Social Compensation Hypotheses; Proceeding Facebook™ and Offline Popularity from Sociability and Self-Esteem, and Mapping the Meanings of Popularity with Semantic Networks. *Journal of Computer Mediated Communication*, 14(1), 1-14.



Appendix

QUESTIONNAIRE FOR SNS MEMBERS

Dear Participant,

Thank you for taking part in this study. This study is a part of my PhD research work. I need your help to gather data for this study. All information collected shall be treated as confidential and the results will be reported in aggregate terms only. Neither the names nor the respondent's identity will be revealed. Kindly take some of your valuable time to fill out the questionnaire. Thank you for your valuable time.

Sangeetha K. L.

Research Scholar,
School of Management Studies, CUSAT
sksangeetha99@gmail.com

I. Personal Profile

- a) Name (Optional) :
- b) Age : 18-24 25-34 35-44 45 above
- c) Gender : Male Female
- d) Marital Status : Unmarried Married Divorced Widow
- e) Educational Qualification : SSLC Plus Two Degree PG
 MPhil/PhD Diploma
- f) Religion : Hindu Christian Muslim Others
- g) Location : Urban Semi-urban Rural
- h) Occupation : Govt. Public Sector Private Sector
 Independent Professional
 Non-profit Org. Student Others
- i) Income(per month) : Below ₹ 10000 10000-20000
 20000-30000 30000-40000
 40000-50000 Above 50000

**II. In which of the following social networks do you have membership?
(You can tick more than one)**

- Facebook Linked In Google Plus
 Twitter MySpace Any other _____

III. How long have you been using SNS?

- < 6 months 6-12 months 1-2 years 2-3 years
 3-4 years 4-5 years 5-7 years More than 7 years

IV. a) What is the frequency of your log in into Social Networking Sites?

- Daily Alternate days Twice a week
 Weekly Fortnightly Monthly

b) In case you log in daily, how many times do you log in into these sites in a day?

- One Two Three More than three

V. Which devices you mainly use to access social networking sites?

- Desktop Laptop Tablet Mobile Phone Others

VI. Approximately how many online friends do you have?

- Below 100 100-200 200-300 300-400 More than 400

VII. In the past week, on average, approximately how much time PER DAY have you spent actively using SNS?

- Less than 30 minutes 30 min-1 hour 1-1.5 hours
 1.5 - 2 hours More than 2 hours

VIII. Please indicate the extent to which you agree with each of the following statements.

5-Strongly Agree 4-Agree 3-Neither Agree nor Disagree 2- Disagree 1-Strongly Disagree

1 Facebook is part of my everyday activity.	5	4	3	2	1
2 I am proud to tell people I'm on Facebook.	5	4	3	2	1
3 Facebook has become part of my daily routine.	5	4	3	2	1
4 I feel out of touch when I haven't logged onto Facebook for a while.	5	4	3	2	1
5 I feel I am part of the Facebook community.	5	4	3	2	1
6 I would be sorry if Facebook shut down.	5	4	3	2	1
7 I will be using Facebook in future also.	5	4	3	2	1

IX. Here are a number of characteristics that describes your personality. Please indicate the extent to which you agree or disagree with the following statements.

5-Strongly Agree 4-Agree 3-Neither Agree nor Disagree 2- Disagree 1-Strongly Disagree

1	I am talkative in nature	5	4	3	2	1
2	I am reserved in nature	5	4	3	2	1
3	I am full of energy	5	4	3	2	1
4	I generate a lot of enthusiasm	5	4	3	2	1
5	I tend to be quiet	5	4	3	2	1
6	I have a confident personality	5	4	3	2	1
7	I am sometimes shy	5	4	3	2	1
8	I am outgoing and sociable	5	4	3	2	1
9	I tend to find fault with others	5	4	3	2	1
10	I am helpful and unselfish with others	5	4	3	2	1
11	I start quarrels with others	5	4	3	2	1
12	I have a forgiving nature	5	4	3	2	1
13	I am generally trusting	5	4	3	2	1
14	I can be unfriendly	5	4	3	2	1
15	I am considerate and kind to almost everyone	5	4	3	2	1
16	I am sometimes rude to others	5	4	3	2	1
17	I like to cooperate with others	5	4	3	2	1
18	I do job systematically	5	4	3	2	1
19	I am somewhat careless	5	4	3	2	1
20	I am a reliable worker	5	4	3	2	1
21	I tend to be disorganized	5	4	3	2	1
22	I tend to be lazy	5	4	3	2	1
23	I continue the task until it is finished	5	4	3	2	1
24	I do things efficiently	5	4	3	2	1
25	I make plans and follows through with them	5	4	3	2	1
26	I am easily distracted	5	4	3	2	1

X. Please indicate the extent to which you agree with each of the following statements.

5-Strongly Agree 4-Agree 3-Neither Agree nor Disagree 2- Disagree

1-Strongly Disagree

1. Interacting with people on Facebook makes me interested in things that happen outside my town.	5	4	3	2	1
2. Interacting with people on Facebook makes me want to try new things.	5	4	3	2	1
3. Interacting with people on Facebook makes me interested in what people different from me is thinking.	5	4	3	2	1
4. Talking with people on Facebook makes me curious about other places in the world.	5	4	3	2	1
5. Interacting with people on Facebook makes me feel like part of a larger community.	5	4	3	2	1
6. Interacting with people on Facebook makes me feel connected to the bigger picture.	5	4	3	2	1
7. Interacting with people on Facebook reminds me that everyone in the world is connected.	5	4	3	2	1
8. Interacting with people on Facebook gives me new people to talk to.	5	4	3	2	1
9. I am willing to spend time to support general community activities.	5	4	3	2	1
10. I come in contact with new people all the time.	5	4	3	2	1
11. There are several members on Facebook I trust to help solve my problems.	5	4	3	2	1
12. There is a member on Facebook I can turn to for advice about making very important decision.	5	4	3	2	1
13. When I feel lonely, there are members on Facebook I can talk to.	5	4	3	2	1
14. The people I interact with on Facebook would put their reputation for me.	5	4	3	2	1
15. The people I interact with on Facebook would provide good job reference for me.	5	4	3	2	1
16. The people I interact with on Facebook would share their last rupee with me.	5	4	3	2	1
17. There is no one that I feel comfortable talking to about intimate personal problems.	5	4	3	2	1
18. I do not know people well enough to get them to do anything important.	5	4	3	2	1

19. The people I interact with on Facebook would help me fight an injustice.	5	4	3	2	1
20. My identity in the Facebook is similar to that of other members in the Facebook.	5	4	3	2	1
21. In Facebook, my friends use common terms to convey messages to each other.	5	4	3	2	1
22. In Facebook, my friends use understandable communication pattern during the discussion.	5	4	3	2	1
23. In Facebook, my friends and I follow similar codes or rules.	5	4	3	2	1
24. In Facebook, my friends and I share interesting narratives.	5	4	3	2	1
25. My friends and I enjoy pleasant dialogue through Facebook.	5	4	3	2	1
26. In Facebook, my friends and I share life events in detail.	5	4	3	2	1
27. I feel that my friends keep promises to each other in Facebook.	5	4	3	2	1
28. I feel that my friends know we can depend on each other in Facebook.	5	4	3	2	1
29. I feel that my friends behave in a consistent manner in Facebook.	5	4	3	2	1
30. I feel that my friends are truthful in dealing with each other in Facebook.	5	4	3	2	1
31. On the whole one can trust people.	5	4	3	2	1

XI Please indicate your willingness to perform the following activities:

5- Very willing 4-Willing 3-Neutral 2-Unwilling 1-Very Unwilling

1 Addressing a political or social issue on your social network	5	4	3	2	1
2 Signing a petition.	5	4	3	2	1
3 Participating in a demonstration against a social issue (e.g., corruption).	5	4	3	2	1
4 Organizing a demonstration against a social issue.	5	4	3	2	1
5 Participating in a strike against a social issue.	5	4	3	2	1
6 Establishing a political party which represents the protest demands.	5	4	3	2	1
7 Join in a peaceful public rally.	5	4	3	2	1
8 Block a highway or road.	5	4	3	2	1

QUESTIONNAIRE FOR CLUB MEMBERS

Dear Participant,

Thank you for taking part in this study. This study is a part of my PhD research work. I need your help to gather data for this study. All information collected shall be treated as confidential and the results will be reported in aggregate terms only. Neither the names nor the respondent's identity will be revealed. Kindly take some of your valuable time to fill out the questionnaire. Thank you for your valuable time.

Sangeetha K. L.

Research Scholar,
School of Management Studies, CUSAT
sksangeetha99@gmail.com

I. Personal Profile

- a) Name (Optional) :
- b) Age : 18-24 25-34 35-44 45 above
- c) Gender : Male Female
- d) Marital Status : Unmarried Married Divorced Widow
- e) Educational Qualification : SSLC Plus Two Degree PG
 MPhil/PhD Diploma
- f) Religion : Hindu Christian Muslim Others
- g) Location : Urban Semi-urban Rural
- h) Occupation : Govt. Public Sector Private Sector
 Independent Professional
 Non-profit Org. Student Others
- i) Income (per month) : Below ₹ 10000 10000-20000
 20000-30000 30000-40000
 40000-50000 Above 50000

II (a) Please give details relating to your membership in relevant Clubs and Associations.

Sl. No	Type of Club /Association	Name of Club or Association	Year of Joining
1	Neighbourhood/Residents Associations		
2	Professional Association (Doctors, Teachers, etc.)		
3	Trade Union or Labour Union		
4	Education group (e.g. PTA, school committee)		
5	Traders or Business Association		
6	Religious/ community group (e.g. SNDP, NSS)		
7	NGO or civic group (e.g. Rotary Club, Red Cross)		
8	Sports Group		
9	Youth group		
10	Other groups		

(b) Of the above groups, If you have membership in more than one group, please specify the name of the group in which you are very active:

III How much time have you spent with your club members over the last 3 months?

- Up to 2 hours 2-5 hours 5-10 hours
 10 – 20 hours More than 20 hours

IV How many contacts do you have in your Club/Association?

- Less than 20 20-30 30-40
 40-50 More than 50

V Please indicate the extent to which you agree with each of the following statements.

5-Strongly Agree 4-Agree 3-Neither Agree nor Disagree 2- Disagree 1-Strongly Disagree

1. I am proud to tell people about my Club/Association.	5	4	3	2	1
2. I feel good if I am described as a typical member of my Club/Association.	5	4	3	2	1
3. I feel I am part of the Club/Association community	5	4	3	2	1
4. I am a person who feels strong ties to my Club/Association	5	4	3	2	1
5. I would be sorry if my Club/Association shut down.	5	4	3	2	1
6. I would be proud to be identified as a member of Club/Association	5	4	3	2	1
7. Club/Association is part of my routine.	5	4	3	2	1

VI Here are a number of characteristics that describes your personality. Please indicate the extent to which you agree or disagree with the following statements.

5-Strongly Agree 4-Agree 3-Neither Agree nor Disagree 2- Disagree 1-Strongly Disagree

1. I am talkative in nature	5	4	3	2	1
2. I am reserved in nature	5	4	3	2	1
3. I am full of energy	5	4	3	2	1
4. I generate a lot of enthusiasm	5	4	3	2	1
5. I tend to be quiet	5	4	3	2	1
6. I have a confident personality	5	4	3	2	1
7. I am sometimes shy	5	4	3	2	1
8. I am outgoing and sociable	5	4	3	2	1
9. I tend to find fault with others	5	4	3	2	1

10. I am helpful and unselfish with others	5	4	3	2	1
11. I start quarrels with others	5	4	3	2	1
12. I have a forgiving nature	5	4	3	2	1
13. I am generally trusting	5	4	3	2	1
14. I can be unfriendly	5	4	3	2	1
15. I am considerate and kind to almost everyone	5	4	3	2	1
16. I am sometimes rude to others	5	4	3	2	1
17. I like to cooperate with others	5	4	3	2	1
18. I do job systematically	5	4	3	2	1
19. I am somewhat careless	5	4	3	2	1
20. I am a reliable worker	5	4	3	2	1
21. I tend to be disorganized	5	4	3	2	1
22. I tend to be lazy	5	4	3	2	1
23. I continue the task until it is finished	5	4	3	2	1
24. I do things efficiently	5	4	3	2	1
25. I make plans and follows through with them	5	4	3	2	1
26. I am easily distracted	5	4	3	2	1

VII Please indicate the extent to which you agree with each of the following statements.

5-Strongly Agree 4-Agree 3-Neither Agree nor Disagree 2- Disagree 1-Strongly Disagree

1	Interacting with people in Club/Association makes me interested in things that happen outside my town.	5	4	3	2	1
2	Interacting with people in Club/Association makes me want to try new things.	5	4	3	2	1
3	Interacting with people in Club/Association makes me interested in what people different from me is thinking.	5	4	3	2	1
4	Talking with people in Club/Association makes me curious about other places in the world.	5	4	3	2	1

5	Interacting with people in Club/Association makes me feel like part of a larger community.	5	4	3	2	1
6	Interacting with people in Club/Association makes me feel connected to the bigger picture.	5	4	3	2	1
7	Interacting with people in Club/Association reminds me that everyone in the world is connected.	5	4	3	2	1
8	Interacting with people in Club/Association gives me new people to talk to.	5	4	3	2	1
9	I am willing to spend time to support general community activities.	5	4	3	2	1
10	I come in contact with new people all the time.	5	4	3	2	1
11	There are several members in Club/Association I trust to help solve my problems.	5	4	3	2	1
12	There is a member in Club/Association I can turn to for advice about making very important decision.	5	4	3	2	1
13	When I feel lonely, there are members in Club/Association I can talk to.	5	4	3	2	1
14	The people I interact with in Club/Association would put their reputation for me.	5	4	3	2	1
15	The people I interact with in Club/Association would provide good job reference for me.	5	4	3	2	1
16	The people I interact with in Club/Association would share their last rupee with me.	5	4	3	2	1
17	There is no one that I feel comfortable talking to about intimate personal problems.	5	4	3	2	1
18	I do not know people well enough to get them to do anything important.	5	4	3	2	1
19	The people I interact with in Club/Association would help me fight an injustice.	5	4	3	2	1
20	My identity in the Club/Association is similar to that of other members in this Club/Association.	5	4	3	2	1
21	In Club/Association, members use common language to convey messages to each other.	5	4	3	2	1

22 In Club/Association, members use understandable communication pattern during the discussion.	5	4	3	2	1
23 In Club/Association, members and I follow similar codes or rules.	5	4	3	2	1
24 In Club/Association, members and I share interesting narratives.	5	4	3	2	1
25 In Club/Association, members and I enjoy pleasant dialogue.	5	4	3	2	1
26 In Club/Association, members and I share life events in detail.	5	4	3	2	1
27 I feel that Club/Association members keep promises to each other.	5	4	3	2	1
28 I feel that Club/Association members know they can depend on each other.	5	4	3	2	1
29 I feel that Club/Association members behave in a consistent manner.	5	4	3	2	1
30 I feel that Clubs/Association members are truthful in dealing with each other.	5	4	3	2	1
31 On the whole one can trust people.	5	4	3	2	1

VIII Please indicate your willingness to perform the following activities:

5- Very Willing 4-Willing 3-Neutral 2-Unwilling 1-Very Unwilling

1. Addressing a political or social issue on your social network	5	4	3	2	1
2. Signing a petition.	5	4	3	2	1
3. Participating in a demonstration against a social issue (e.g., corruption).	5	4	3	2	1
4. Organizing a demonstration against a social issue.	5	4	3	2	1
5. Participating in a strike against a social issue.	5	4	3	2	1
6. Establishing a political party which represents the protest demands.	5	4	3	2	1
7. Join in a peaceful public rally.	5	4	3	2	1
8. Block a highway or road.	5	4	3	2	1

.....❧.....

||| List of Publications |||

Publications

- [1] Sangeetha, K. L., & Mavoothu, D. (2016). Social Networking Site's Usage Trends and Intensity of Usage among Students: A Study on Facebook, *Management Researcher* (ISSN 2230-8431), Vol. XXII, Issue No.3, Jan-Mar 2016, pp. 412-420.
- [2] Sangeetha, K. L., & Mavoothu, D. (2016). The Role of Online Social Capital in Human Resource Management: A Conceptual Model, *Bharata Mata Journal of Multidisciplinary Studies* (ISSN 2348-3571), Vol. III, Issue No.1, pp. 128-138.
- [3] Sangeetha, K. L., & Mavoothu, D. (2015). Assessing the Mediating Role of Social Identity on the Relationship between Social Networking Site Usage and Bridging Social Capital. *International Journal of Research in Commerce, IT and Management* (ISSN 2231-5756), Vol. 5, Issue No.07 (July), pp. 36-40.
- [4] Sangeetha, K. L. & Ranjana, M. V. (2015). Social Media – The New Trend Setter in Recruitment. *Value Creation in Services- Issues and Challenges* (ISBN: 978-93-84869-04-5), Excel India Publishers, New Delhi, pp. 125-135
- [5] Sangeetha, K. L., & Mavoothu, D. (2013), The Effect of Facebook Intensity and Connection Strategies on Online Bridging Social Capital, *Trade Wind – An annual Journal of Post-graduate Department of Commerce, Newman College* (ISSN 2320-5393), Vol. 8, (December), pp. 39-47.
- [6] Sangeetha, K. L., & Mavoothu, D. (2013). A Study on the Validation of Online Social Capital Scale in Indian Context. *Trends and Challenges in Global Business Management* (ISBN 978-93-82338-84-0), Bonfring, India, pp. 53-57.

Paper Presentations

- [1] Sangeetha, K. L., & Mavoothu, D. (2016). “Social Media as a Tool for Crisis Management”, in the National Seminar on Crisis Management and Business Continuity Planning conducted at School of Management Studies, CUSAT on 11th and 12th of February, 2016.
- [2] Sangeetha, K. L., & Mavoothu, D. (2015). “The Role of Online Social Capital in Human Resource Management : A Conceptual Model”, in the National Seminar on Dynamics of Managing HR in the New Global Order held at Bharata Mata Institute of Management, Kochi on 30th October, 2015.
- [3] Sangeetha, K. L., & Mavoothu, D. (2013). “A Study on the Validation of Online Social Capital in Indian Context” in the International Conference on Trends and Challenges in Global Business Management, Placitum 2013 held at Sree Narayana Gurukulam College of Engineering, on 22-23 November 2013.
- [4] Sangeetha, K. L., & Mavoothu, D. (2013). “A Critical Analysis of the Increasing Importance of Social Media”, in the National Conference Excellence in Human Resource Practices held at Bharata Mata Institute of Mangament, Kochi on 26th August, 2013.
- [5] Sangeetha, K. L., & Ranjana, M.V. (2013). “Social Media – The New Trend Setter in Recruitment” in National Conference on Value Creation in Services- Issues and Challenges, held at Federal Institute of Science and Technology (FISAT), Angamaly, on 18th and 19th July, 2013.

